U.S. DEPARTMENT OF COMMERCE
National Technical Information Service

PB-261 467

Federal Personnel Management Handbook for Librarians, Information Specialists and Technicians

Environmental Protection Agency, Washington, D C

Jun 76

356002

PB 261 467

"Preliminary copy"

Federal Personnel Management Handbook for Librarians, Information Specialists & Technicians

Federal Library Committee

June 1976

REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U. S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

BIBLIOGRAPHIC DATA SHEET

1. Report No.

2.

3. Recipient's Accession No. PB-261 467

4. Title and Subtitle
Federal Personnel Management Handbook for Librarians, Information Specialists and Technicians.

5. Report Date Jun 76

6.

7. Author(s)

8. Performing Organization Rept. No.

9. Performing Organization Name and Address
Environmental Protection Agency, Washington, D. C.
Library Systems Branch.

10. Project/Task/Work Unit No.

11. Contract/Grant No.

12. Sponsoring Organization Name and Address

13. Type of Report & Period Covered

14.

15. Supplementary Notes

Preliminary copy.

16. Abstracts

This handbook was developed to aid library managers in developing staff requirements and preparing job descriptions to meet library staffing needs. Included in the handbook are text and summaries of Civil Service Commission qualification standards, position classification standards for GS-1410, GS-1411, and GS-1412 series, and the legal basis for grade determination. Illustrative work situations for the GS-1410, GS-1411, and GS-1412 series are also a part of the handbook.

17. Key Words and Document Analysis. 17a. Descriptors

*Librarians,
*Information scientists,
*Job analysis,
Requirements,
Personnel management,
Civil service,
Education,
Specialized training,
Qualifications,
Standards,
Handbooks.

17b. Identifiers/Open-Ended Terms

17c. COSATI Field/Group 5I 5B

18. Availability Statement
National Technical Information Service
Springfield, Virginia 22161

19. Security Class (This Report) UNCLASSIFIED

20. Security Class (This Page) UNCLASSIFIED

21. No. of Pages 287p

22. Price PC$9.25/MF$3.0

INTRODUCTION

This handbook was developed to aid library managers in developing staff requirements and preparing job descriptions to meet library staffing needs. Included in the handbook are text and summaries of Civil Service Commission qualification standards, position classification standards for GS-1410, GS-1411, and GS-1412 series, and the legal basis for grade determination. Illustrative work situations for the GS-1410, GS-1411, and GS-1412 series are also a part of the handbook.

At this time, it is planned to issue supplements as changes occur. This handbook is designated as a "preliminary copy" because it probably will be subject to major changes as experience is gained from its use. In this regard, suggestions for change (additions, deletions, reformating, etc.) are encouraged by users. Please direct these to the Federal Library Committee, Attn: Federal Personnel Handbook.

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§ 5104. Basis for grading positions.

The General Schedule, the symbol for which is "GS", is the basic pay schedule for positions to which this chapter applies. The General Schedule is divided into 18 grades of difficulty and responsibility of work, as follows:

(1) Grade GS–1 includes those classes of positions the duties of which are to perform, under immediate supervision, with little or no latitude for the excercise of independent judgment—

(A) the simplest routine work in office, business, or fiscal operations; or

(B) elementary work of a subordinate technical character in a professional, scientific, or technical field.

(2) Grade GS–2 includes those classes of positions the duties of which are—

(A) to perform, under immediate supervision, with limited latitude for the exercise of independent judgment, routine work in office, business, or fiscal operations, or comparable subordinate technical work of limited scope in a professional, scientific, or technical field, requiring some training or experience; or

(B) to perform other work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.

(3) Grade GS–3 includes those classes of positions the duties of which are—

(A) to perform, under immediate or general supervision, somewhat difficult and responsible work in office, business, or fiscal operations, or comparable subordinate technical work of limited scope in a professional, scientific, or technical field, requiring in either case—

(i) some training or experience;

(ii) working knowledge of a special subject matter; or

(iii) to some extent the exercise of independent judgment in accordance with well-established policies, procedures, and techniques; or

(B) to perform other work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.

(4) Grade GS–4 includes those classes of positions the duties of which are—

(A) to perform, under immediate or general supervision, moderately difficult and responsible work in office, business, or fiscal operations, or comparable subordinate technical work in a professional, scientific, or technical field, requiring in either case—

(i) a moderate amount of training and minor supervisory or other experience;

(ii) good working knowledge of a special subject matter or a limited field of office, laboratory, engineering, scientific, or other procedure and practice; and

(iii) the exercise of independent judgment in accordance with well-established policies, procedures, and techniques; or

(B) to perform other work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.

(5) Grade GS–5 includes those classes of positions the duties of which are—

(A) to perform, under general supervision, difficult and responsible work in office, business, or fiscal administration, or comparable subordinate technical work in a professional, scientific, or technical field, requiring in either case—

(i) considerable training and supervisory or other experience;

(ii) broad working knowledge of a special subject matter or of office, laboratory, engineering, scientific, or other procedure and practice; and

(iii) the exercise of independent judgment in a limited field;

(B) to perform, under immediate supervision, and with little opportunity for the exercise of independent judgment, simple and elementary work requiring professional, scientific, or technical training; or

(C) to perform other work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.

(6) Grade GS–6 includes those classes of positions the duties of which are—

(A) to perform, under general supervision, difficult and responsible work in office, business, or fiscal administration, or comparable subordinate technical work in a professional, scientific, or technical field, requiring in either case—

(i) considerable training and supervisory or other experience;

(ii) broad working knowledge of a special and complex subject matter, procedure, or practice, or of the principles of the profession, art, or science involved; and

(iii) to a considerable extent the exercise of independent judgment; or

(B) to perform other work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.

(7) Grade GS–7 includes those classes of positions the duties of which are—

(A) to perform, under general supervision, work of considerable difficulty and responsibility along special technical or supervisory lines in office, business, or fiscal administration, or comparable subordinate technical work in a professional, scientific, or technical field, requiring in either case—

(i) considerable specialized or supervisory training and experience;

(ii) comprehensive working knowledge of a special and complex subject matter; procedure, or practice, or of the principles of the profession, art, or science involved; and

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(iii) to a considerable extent the exercise of independent judgment;

(B) under immediate or general supervision, to perform somewhat difficult work requiring—

(i) professional, scientific, or technical training; and

(ii) to a limited extent, the exercise of independent technical judgment; or

(C) to perform other work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.

(8) Grade GS-8 includes those classes of positions the duties of which are—

(A) to perform, under general supervision, very difficult and responsible work along special technical or supervisory lines in office, business, or fiscal administration, requiring—

(i) considerable specialized or supervisory training and experience;

(ii) comprehensive and thorough working knowledge of a specialized and complex subject matter, procedure, or practice, or of the principles of the profession, art, or science involved; and

(iii) to a considerable extent the exercise of independent judgment; or

(B) to perform other work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.

(9) Grade GS-9 includes those classes of positions the duties of which are—

(A) to perform, under general supervision, very difficult and responsible work along special technical, supervisory, or administrative lines in office, business, or fiscal administration, requiring—

(i) somewhat extended specialized training and considerable specialized, supervisory, or administrative experience which has demonstrated capacity for sound independent work;

(ii) thorough and fundamental knowledge of a special and complex subject matter, or of the profession, art, or science involved; and

(iii) considerable latitude for the exercise of independent judgment;

(B) with considerable latitude for the exercise of independent judgment, to perform moderately difficult and responsible work, requiring—

(i) professional, scientific, or technical training equivalent to that represented by graduation from a college or university of recognized standing; and

(ii) considerable additional professional, scientific, or technical training or experience which has demonstrated capacity for sound independent work; or

(C) to perform other work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.

(10) Grade GS-10 includes those classes of positions the duties of which are—

(A) to perform, under general supervision, highly difficult and responsible work along special technical, supervisory, or administrative lines in office, business, or fiscal administration, requiring—

(i) somewhat extended specialized, supervisory, or administrative training and experience which has demonstrated capacity for sound independent work;

(ii) thorough and fundamental knowledge of a specialized and complex subject matter, or of the profession, art, or science involved; and

(iii) considerable latitude for the exercise of independent judgment; or

(B) to perform other work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.

(11) Grade GS-11 includes those classes of positions the duties of which are—

(A) to perform, under general administrative supervision and with wide latitude for the exercise of independent judgment, work of marked difficulty and responsibility along special technical, supervisory, or administrative lines in office, business, or fiscal administration, requiring—

(i) extended specialized, supervisory, or administrative training and experience which has demonstrated important attainments and marked capacity for sound independent action or decision; and

(ii) intimate grasp of a specialized and complex subject matter, or of the profession, art, or science involved, or of administrative work of marked difficulty;

(B) with wide latitude for the exercise of independent judgment, to perform responsible work of considerable difficulty requiring somewhat extended professional, scientific, or technical training and experience which has demonstrated important attainments and marked capacity for independent work; or

(C) to perform other work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.

(12) Grade GS-12 includes those classes of positions the duties of which are—

(A) to perform, under general administrative supervision, with wide latitude for the exercise of independent judgment, work of a very high order of difficulty and responsibility along special technical, supervisory, or administrative lines in office, business, or fiscal administration, requiring—

(i) extended specialized, supervisory, or administrative training and experience which has demonstrated leadership and attainments of a high order in specialized or administrative work; and

(ii) intimate grasp of a specialized and complex subject matter or of the profession, art, or science involved;

(B) under general administrative supervision, and with wide latitude for the exercise of independent judgment, to perform professional, scientific, or technical work of marked difficulty and responsibility requiring extended professional, scientific, or technical training and experience which has demonstrated leadership and attainments of a high order in professional, scientific, or technical research, practice, or administration; or

(C) to perform other work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.

(13) Grade GS-13 includes those classes of positions the duties of which are—

(A) to perform, under administrative direction, with wide latitude for the exercise of independent judgment, work of unusual difficulty and responsibility along special technical, supervisory, or administrative lines, requiring extended specialized, supervisory, or administrative training and experience which has demonstrated leadership and marked attainments;

(B) to serve as assistant head of a major organization involving work of comparable level within a bureau;

(C) to perform, under administrative direction, with wide latitude for the exercise of independent judgment, work of unusual difficulty and responsibility requiring extended professional, scientific, or technical training and experience which has demonstrated leadership and marked attainments in professional, scientific, or technical research, practice, or administration; or

(D) to perform other work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.

(14) Grade GS-14 includes those classes of positions the duties of which are—

(A) to perform, under general administrative direction, with wide latitude for the exercise of independent judgment, work of exceptional difficulty and responsibility along special technical, supervisory, or administrative lines which has demonstrated leadership and unusual attainments;

(B) to serve as head of a major organization within a bureau involving work of comparable level;

(C) to plan and direct or to plan and execute major professional, scientific, technical, administrative, fiscal, or other specialized programs, requiring extended training and experience which has demonstrated leadership and unusual attainments in professional, scientific, or technical research, practice, or administration, or in administrative, fiscal, or other specialized activities; or

(D) to perform consulting or other professional, scientific, technical, administrative, fiscal, or other specialized work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.

(15) Grade GS-15 includes those classes of positions the duties of which are—

(A) to perform, under general administrative direction, with very wide latitude for the exercise of independent judgment, work of outstanding difficulty and responsibility along special technical, supervisory, or administrative lines which has demonstrated leadership and exceptional attainments;

(B) to serve as head of a major organization within a bureau involving work of comparable level;

(C) to plan and direct or to plan and execute specialized programs of marked difficulty, responsibility, and national significance, along professional, scientific, technical, administrative, fiscal, or other lines, requiring extended training and experience which has demonstrated leadership and unusual attainments in professional, scientific, or technical research, practice, or administration, or in administrative, fiscal, or other specialized activities; or

(D) to perform consulting or other professional, scientific, technical, administrative, fiscal, or other specialized work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.

(16) Grade GS-16 includes those classes of positions the duties of which are—

(A) to perform, under general administrative direction, with unusual latitude for the exercise of independent judgment, work of outstanding difficulty and responsibility along special technical, supervisory, or administrative lines which has demonstrated leadership and exceptional attainments;

(B) to serve as head of a major organization within a bureau involving work of comparable level;

(C) to plan and direct or to plan and execute professional, scientific, technical, administrative, fiscal, and other specialized programs of unusual difficulty, responsibility, and national significance, requiring extended training and experience which has demonstrated leadership and exceptional attainments in professional, scientific, or technical research, practice, or administration, or in administrative, fiscal, or other specialized activities; or

(D) to perform consulting or other professional, scientific, technical, administrative, fiscal, or other specialized work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.

(17) Grade GS-17 includes those classes of positions the duties of which are—

(A) to serve as the head of a bureau where the position, considering the kind and extent of the authorities and responsibilities vested in it, and the scope, complexity, and degree of difficulty of the activities carried on, is of a high order among the whole group of positions of heads of bureaus;

(B) to plan and direct or to plan and execute professional, scientific, technical, administrative, fiscal, or other specialized programs of exceptional difficulty, responsibility, and national significance, requiring extended training and experience which demonstrated exceptional leadership and attainments in professional,

CHARTING FOR TITLE V

Basis for grading positions.

The General Schedule, the symbol for which is "GS", is the basic pay schedule for positions to which the chapter applies. The General Schedule is divided into 18 grades of difficulty and responsibility of work, as follows:

GS-1	GS-2	GS-3
(1) to perform, under immediate supervision, with little or no latitude for the exercise of independent judgment:		
(A) the simplest routine work in office, business, or fiscal operations; or	(A) to perform, under immediate supervision, with limited latitude for the exercise of independent judgment, routine work in office, business, or fiscal operations, or comparable subordinate technical work of limited scientific or technical training or experience or:	(A) to perform under immediate or general supervision, somewhat difficult and responsible work in office, business, or fiscal operations, or comparable subordinate technical work of limited scope in a professional, field, requiring in either (i) some training or experience; (ii) working knowledge of a special subject matter; or (iii) to some extent the exercise of independent judgment in accordance with well-established policies, procedures, and techniques; or
(B) elementary work of a subordinate technical character in a professional, scientific, or technical field.	(B) to perform other work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.	(B) to perform other work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.

CHARTING FOR TITLE V

GS-4	GS-5	GS-6
(A) to perform, under immediate or general supervision, moderately difficult and responsible work in office, business, or fiscal operations, or comparable subordinate technical work in a professional, scientific, or technical field, requiring in either case--	(A) to perform, under general supervision, difficult and responsible work in office, business or fiscal administration, or comparable subordinate technical work in a professional, scientific, or technical field, requiring in either case--	(A) to perform, under general supervision, difficult and responsible work in office, business, or fiscal administration, or comparable subordinate technical work in a professional, scientific, or technical field, requiring in either case--
(i) a moderate amount of training, and minor supervisory or other experience;	(i) considerable training and supervisory or other experience.	(i) considerable training and supervisory or other experience.
(ii) good working knowledge of a special subject matter or a limited field of office, laboratory, engineering, scientific, or other procedure and practice; and	(ii) broad working knowledge of a special subject matter or of office, laboratory, engineering, scientific, or other procedure and practice; and	(ii) broad working knowledge of a special and complex subject matter, procedure, or practice, or of the principles of the profession, art, or science involved; and
(iii) the exercise of independent judgment in accordance with well-established policies, procedures, and techniques; or	(iii) the exercise of independent judgment in a limited field;	(iii) to a considerable extent the exercise of independent judgment; or
(B) to perform other work of equal importance, difficulty, and responsiblity, and requiring comparable qualifications.	(B) to perform, under immediate supervision, and with little opportunity for the exercise of independent judgment, simple and elementary work requiring professional, scientific, or technical training; or	(B) to perform other work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.
	(C) to perform other work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.	

GS-7	GS-8	GS-9
(A) to perform, under general supervision, work of considerable difficulty and responsibility along special technical or supervisory lines in office business, or fiscal administration, or comparable subordinate techninical work in a professional scientific, or technical field, requiring in either case--	(A) to perform, under general supervision, very difficult and responsible work along special technical or supervisory lines in office, business, or fiscal administration, requiring--	(A) to perform, under general supervision, very difficult and responsible work along special technical, supervisory, or administrative lines in office, business, or fiscal administration, requiring--
(i) considerable specialized or supervisory training and experience;	(i) considerable specialized or supervisory training and experience;	(i) somewhat extended specialized training and considerable specialized supervisory or administrative experience which has demonstrated capacity for sound independent work;
(ii) comprehensive working knowledge of a special and complex subject matter; procedure, or practice, or of the principles of the profession, art, or science involved; and	(ii) comprehensive and thorough working knowledge of a specialized and complex subject matter, procedure, or practice, or of the principles of the profession, art, or science involved; and	(ii) thorough and fundamental knowledge of a special and complex subject matter, or of the profession, art, or science involved; and
(iii) to a considerable extent the exercise of independent judgment;	(iii) to a considerable extent the exercise of independent judgment; or	(iii) considerable latitude for the exercise of independent judgment;
(B) under immediate or general supervision, to perform somewhat difficult work requiring--	(B) to perform, other work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.	(B) with considerable latitude for the exercise of independent judgment, to perform moderately difficult and responsible work, requiring--
(i) professional, scientific or technical training; and		(i) professional, scientific, or technical training equivalent to that

(ii) to a limited extent, the exercise of independent technical judgment; or		represented by graduation from a college or university of recognized standing; and (ii) considerable additional professional, scientific, or technical training or experience which has demonstrated capacity for sound independent work; or
(C) to perform other work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.		(C) to perform other work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.
GS-10	GS-11	GS-12
(A) to perform, under general supervision, highly difficult and responsible work along special technical, supervisory, or administrative lines in office, business, or fiscal administration, requiring--	(A) to perform, under general administrative supervision and with wide latitutde for the exercise of independent judgment, work of marked difficulty and responsibility along special technical, supervisory, or administrative lines in office, business, or fiscal administration, requiring--	(A) to perform, under general administrative supervision, with wide latitude for the exercise of independent judgment, work of a very high order of difficulty and responsibility along special technical, supervisory, or administrative lines in office, business, or fiscal administration, requiring--
(i) somewhat extended specialized, supervisory, or ad-administrative training and experience which has demonstrated capacity for sound independent work;	(i) extended specialized, supervisory or administrative training and experience which has demonstrated important attainments and marked capacity for sound independent action or decision; and	(i) extended specialized, supervisory or administrative training and experience which has demonstrated leadership and attainments of a high order in specialized or administrative work; and
(ii) thorough and fundamental knowledge of a specialized and complex subject matter or of the profession, art, or science	(ii) intimate grasp of a specialized and complex subject matter, or of the profession, art, or science involved, or of	(ii) intimate grasp of a specialized and complex subject matter or of the profession, art, or science in-

involved; and (iii) considerable latitude for the exercise of independent judgment; or	administrative work of marked difficulty;	volved;
(B) to perform other work of equal importance, difficulty and responsibility, and requiring comparable qualifications.	(B) with wide latitude for the exercise of independent judgment, to perform responsible work of considerable difficulty requiring somewhat extended professional, scientific, or technical training and experience which has demonstrated important attainments and marked capacity for independent work; or	(B) under general administrative supervision, and with wide latitude for the exercise of independent judgment, to perform professional, scientific, or technical work of marked difficulty and responsibility requiring extended professional, scientific,or technical training and experience which has demonstrated leadership and attainments of a high order in professional, scientific, or technical research, practice, or administration; or
	(C) to perform other work of equal importance, difficulty, and responsibility and requiring comparable qualifications.	(C) to perform other work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.

GS-13	GS-14	GS-15
(A) to perform, under administrative direction, with wide latitude for the exercise of independent judgment, work of unusual difficulty and responsibility along special technical, supervisory, or administrative training and experience which has demonstrated leadership and marked attainments;	(A) to perform, under general administrative direction with wide latitude for the exercise of independent judgment, work of exceptional difficulty and responsibility along special technical supervisory, or administrative lines which has demonstrated leadership and and unusual attainments;	(A) to perform, under general administrative direction, with very wide latitude for the exercise of independent judgment, work of outstanding difficulty and responsibility along special technical, supervisory, or administrative lines which has demonstrated leadership and exceptional attainments;
(B) to serve as assistant head of a major organization involving work of comparable level within a bureau;	(B) to serve as head of a major organization within a bureau involving work of comparable level;	(B) to serve as head of a major organization within a bureau involving work of comparable level;
(C) to perform, under administrative direction, with wide latitude for the ex-	(C) to plan and direct or to plan and execute major professional, scientific,	(C) to plan and direct or to plan and execute specialized programs of marked

GS-16

(A) to perform, under general administrative direction, with unusual latitude for the exercise of independent judgment, work of outstanding difficulty and responsibility along special technical, supervisory, or administrative lines which has demonstrated leadership and exceptional attainments;

(B) to serve as head of a major organization within a bureau involving work of comparable level;

(C) to plan and direct or to plan and execute professional, scientific, technical, administrative, fiscal, and other specialized programs of unusal difficulty, responsibility, and national significance, requiring extended training and experience which has demonstrated leadership and exceptional attainments in professional, scientific, or technical research, practice, or administration, or in administrative, fiscal, or other specialized activities; or

(D) to perform consulting or other professional, scientific, technical, administrative, fiscal, or other specialized work of equal importance, difficulty, and responsibility, and requiring comparable qualifications.

KNOWLEDGE REQUIREMENTS

Library and Information Services	1411 Series	1410 Series	1412 Series
1. Theories objectives and principles of librarianship		Full professional knowledge	
2. Techniques of Librarianship	Practical knowledge of library functions and services	Full professional knowledge	Practical knowledge of documentation and library techniques
3. Literature resources		Inherent requirement	
4. Subject matter disciplines		Some positions substantial	*Broad knowledge of one or more professional, scientific or technical disciplines or fields of interest
5. Foreign language		Some positions substantial	Some cases
Sources of these knowledges	Item 2 OJT Junior College	Item 1-3 MLS Item 4-5 BA	Item 2 OJT Item 4-5 BA and post graduate

* As opposed to in-depth professional subject knowledge or a full knowledge of the state of the art required by positions classified in a subject matter series.

OUTLINES OF CSC POSITION CLASSIFICATION STANDARDS
TS No. 60 (Feb 66) and TS No. 62 (Jun 66)

1411	1410	1412
This series includes...	This series includes...	This series includes...
	The librarian occupation...	The technical information specialist...
Exclusions	Exlusions	Exclusions
Coverage	Occupational information	Introduction
A. Distinguishing between library aid/technician and other non-professional or clerical position	Types of government libraries	A. Need for technical information services
B. Distinguishing between library technician and professional librarian		B. Information resources
	Functions performed by professional librarians	Functions performed by Technical Information Specialist
	I Administration	1. Analyzing source materials indexing, extracting, abstracting
	II Selection of material	2. Developing terminology control
	III Acquisition of material	3. Literature searching
	IV Cataloging and classification and indexing	
	V Assistance to readers	
	VI Reference work	
	VII Literature searching	

1411	1410	1412
	VIII Compiling bibliographies	
	IX Researching with information	
	X Other (Professional responsibility for nonprofessional functions.)	
Titles	Official titles and specializations	Official titles and specializations
Library aid	A. Subject matter generalists	A. Authorized titles
Library Technician	1. Librarian	1. Technical Information Specialist
Supervisory library technician	2. Supervisory librarian	2. Supervisory Technical Information Specialist
	3. Administrative librarian	3. Technical Information Officer
	4. Library Director	
	B. Librarians who require specialized knowledge	B. Authorized specializations
	1. Subject matter specialist	1. Subject specialist
	2. Foreign language specialist	2. Foreign language specialist

PROBLEM AREAS

1. Determination of series:*
   1. Primary qualifications required
   2. Career relationship

	1410	1412	Subject Matter Series
A. Primary qualifications	1. Full professional knowledge of librarianship	1. Knowledge of 1 or more broad scientific field or subject matter area; in combination with	In depth knowledge of a specialized, professional scientific, or technical subject field.
	2. Broad knowledge of literature; or above in combination with:	2. Practical knowledge of techniques of handling documents or information	
	3. Knowledge of subject field; Knowledge of languages; Knowledge of machine technology; or Knowledge of administration		
B. Career relationships	Standard does not specify the career relationship. Presumably it would be the preofession of librarianship.	Field of documentation and information services	Subject field

*Information based on p. 2-3 of the CSC Position Standards (TS 60 Feb 66)

Librarian
Administrative Librarian
Supervisory Librarian
Library Director
(with specializations as appropriate)
Grades GS-7/15

Librarian Trainee
(Special provision at GS-5)

DESCRIPTION OF WORK

Positions involve work that primarily requires a full professional knowledge of the theories, principles, and techniques of librarianship. An inherent requirement of these positions is a knowledge of literature resources. Such work is concerned with the collection, organization, preservation, and retrieval of recorded knowledge in printed, written, audiovisual, film, wax, near-print methods, magnetic tape, or other media. Typical library functions include one or more of the following: selection, acquisition, cataloging and classification of materials, bibliographic and readers' advisory services, reference and literature searching services, library management and systems planning, or the development and strengthening of library service. Some positions may involve work in connection with the development of information retrieval systems.

SPECIALIZATIONS

Since many libraries are highly specialized, the work often lies chiefly in one subject-matter field, or closely related subject areas. To serve subject specialists who are the principal users of these libraries, some librarians require a knowledge of a specialized subject or field of endeavor. Such subject-matter knowledge typically covers a broad field, rather than a deep subject knowledge and competence related to a specific discipline or a full knowledge of the state of the art. Because materials in libraries are often in foreign languages, some librarians also must have a proficient knowledge of one or more foreign languages.

To provide qualified personnel for librarian positions requiring knowledge of a subject-matter field and/or proficient knowledge of several foreign languages, the following specializations are authorized:

Subject-matter specializations

Biological Sciences
Medical Sciences
Physical Sciences
Social Sciences
Business and Industry
Engineering
Education
Fine Arts
Humanities
Law
Music

Foreign language specializations

Germanic
Oriental
Romance
Slavic
Arabic

EXPERIENCE AND EDUCATION REQUIREMENTS

All librarians must meet the requirements for professional education in library science or possess equivalent experience as shown in IA, IB, IC or IIA, below. The usual way of entering the profession is to qualify at grade GS-9 on the basis of a master's degree in library science. However, it is possible to qualify for entrance at the GS-7 level on other bases as indicated.

For Librarian (appropriate specialization) positions all candidates must also meet requirements which are directly related to the subject matter or language of the specialization. These requirements are in addition to the basic professional library science requirements which apply to all positions. However, these requirements may be included within, or may be supplemental to, those specified for all positions at GS-7 and GS-9. The basic specialized subject-matter or language requirements for Librarian (appropriate specialization) positions are defined below at the grade GS-7 level.

I. *Requirements for Librarian positions, GS-7*

To qualify for all Librarian GS-7 positions, the applicant must meet the requirements specified in paragraphs A, B, or C below. (*Note:* Applicants who qualify under provisions of paragraphs A or B will not be required to take a subject-matter test in library science.)

A. Completion of 1 full academic year of graduate study in library science in an accredited college or university, in addition to completion of all work required for a bachelor's degree; *or*

B. Completion of all requirements for a "5th-year" bachelor's degree in library science. *In addition*, the applicant must have had at least 1 year of library experience which included the performance of duties in one or more functional areas of librarianship at the GS-5 or higher grade level; *or*

C. A total, in some combination, of not less than 5 years of college-level education, training, and/or experience. To qualify on this basis, the applicant must establish conclusively that the education, training, and/or experience has provided a knowledge and understanding of the theories, principles, and techniques of professional librarianship; a knowledge of literature resources; and the knowledges and abilities essential for providing effective library services. Under this provision:

   (1) Applicants must pass a subject-matter test in library science.

   (2) If the applicant qualifies on the basis of a college level education, he must have had at least 1 year of library experience comparable in difficulty and responsibility to that of a GS-5 or higher level) library technician, technical information specialist, or subject-matter specialist (e.g., a chemist) performing library services.

   (3) If the applicant qualifies on the basis of experience alone, with no college level education or training, he must have had at least 2 years of library experience comparable in difficulty and responsibility to that of a GS-5 (or higher level) library technician.

   (4) The applicant may qualify under any time and quality equivalent combinations of the requirements shown in paragraphs (2) and (3).

   (5) For the purpose of evaluating education, a full year of study is defined as a minimum of 30 semester hours credit (or equivalent). Specialized training, e.g., training at a school for library technicians or through "in-house" courses, will be allowed appropriate credit depending upon its applicability and extent.

To qualify for Librarian (appropriate specialization) positions GS-7, the applicant must also possess specialized knowledges of a subject-matter field and/or proficiency in one or more foreign languages which are directly related to the positions being filled. When such knowledges *are required by the position*, the applicant's education or experience must have included or been supplemented by the requirements specified in one of the paragraphs below:

(a) A full 4-year course of study in an accredited college or university which meets all academic requirements for a bachelor's degree, and also (1) has included at least 24 semester hour credits in the specialized field for which the applicant is being considered, e.g., physical science, biological science, social science; *or* (2) has included any combination of subjects with at least 15 semester hour credits in a major subject (such as physics or chemistry) which is especially applicable to the position for which the applicant is being considered; *or*

(b) Completion of at least 24 semester hours of legal study in an accredited law school for positions primarily concerned with providing library services in law or legislative reference; *or*

(c) Four years of successful and pertinent experience of such nature and level to provide a knowledge of the basic principles, theories, practices, techniques, terminology and expressions of the appropriate discipline or subject-matter field;

an understanding of the standard methods, procedures, and techniques of research and analysis in the subject-matter field; ability to acquire additional information about the field and related fields; and some knowledge of literature resources in the field.

Such experience should be equivalent to that which would have been acquired through successful completion of a full 4-year curriculum in an accredited college or university with major study in appropriate subjects, or combination of subjects, as specified in item "(a)" above; or legal training as specified in item "(b)" above, *or*

(d) Any time equivalent combination of experience as described in item "(c)" with education as described in item "(a)" or "(b)" above.

(e) Demonstrated ability as shown by education or experience to read or translate information from one or more foreign languages into English.

II. *Requirements for Librarian positions, GS-9*

A. Completion of all requirements for a master's degree or 2 full academic years of graduate study in library science, in an accredited college or university, meets all requirements for Librarian positions, GS-9.

B. In addition to meeting one of the requirements for GS-7 (A, B, or C above) must have had professional *or* advanced experience *or* graduate study as follows:

(1) One year of professional experience in librarianship which included the performance, supervision, or administration of one or more major functional areas of librarianship (i.e., selection, acquisition, cataloging and classification of materials, bibliographic and readers' advisory services, reference and literature searching services, library management, systems planning, or development and strengthening of library services).

Some positions are highly specialized in one functional area, and may require that the advanced experience be in the appropriate function to qualify at these higher grade levels.

(2) One year of professional or advanced experience in the subject matter or language which has provided the applicant with the professional, technical, language, or other specialized knowledges and abilities required by the particular position for which he is being considered. Such experience may have been gained, e.g., as a specialized librarian; or as a subject specialist, professor or teacher, translator, technical writer or editor, literature searcher, indexer, or abstracter, etc., in the particular subject-matter and/or language area.

Graduate education in a subject-matter field which is especially applicable to the position, and provides knowledges required to perform the duties of the position, as follows:

(a) Completion of all requirements for a master's degree; *or*

(b) Two full academic years of graduate education.

III. *Requirements for Librarian positions, GS-11 and above*

A. In addition to meeting the requirements for GS-9 (either A or B) candidates must have had either:

(1) One year of professional experience in librarianship; *or*

(2) One year of professional or advanced experience in a subject-matter or language area appropriate to the position.

B. Completion of all the requirements for a doctoral degree (or equivalent) or 3 full academic years of graduate education in library science.

C. In addition to possessing professional education in library science (or equivalent experience) as required for entrance at grades GS-7 or GS-9, candidates must have completed graduate study in a subject matter or language area appropriate to the position as follows:

(1) All requirements for a doctoral degree (Ph. D. or equivalent); *or*

(2) Three full academic years of graduate education.

IV. *Combinations of professional experience and graduate education*

Equivalent combinations of professional experience and graduate education of the types described above are acceptable at each grade. (Thirty semester hours, or the equivalent, of part-time graduate education may be considered to be equal to 1 year of full-time graduate education.)

QUALITY OF EXPERIENCE

For grades GS-11 and below, at least 6 months of the required experience must have been at the level of difficulty comparable to that of the next lower grade, or 1 year comparable to the second lower grade, in the Federal service. For grades GS-12 and above, at least 1 year of the required experience must have been at a level of difficulty comparable to that of the next lower grade in the Federal service.

SUPERVISORY AND ADMINISTRATIVE POSITIONS

For supervisory positions, see the qualification standard for "Supervisory Positions in General Schedule Occupations," in part III of this handbook.

For positions concerned with administration, management, or direction of library programs candidates must meet all other requirements for the particular grade and also show that they possess the required administrative and/or managerial ability to perform successfully the duties of such positions. Education, training, or experience of the candidate should demonstrate, e.g., ability to manage or direct a library, group of libraries, or library system; ability to plan, organize, and direct the development and execution of library programs, policies, and procedures; ability to plan or conduct management studies, public relations and educational activities; ability to plan, develop and carry out administrative activities of the library or library system concerned with budget and finance, personnel, plant and equipment, etc.

BASIS OF RATING

All competitors who meet the education and experience requirements for GS-7 and above, who pass the written test in library science when required, will be rated based upon an evaluation of their experience and training in library work. The library science written test, when required, will be used for qualification purposes only.

EVALUATING EXPERIENCE AND TRAINING

In evaluating experience and training, consideration will be given to the type, level, and scope of experience relating directly to the particular position or positions under consideration, as indicated in the application, and to any additional pertinent information obtained from references, employees, associates and colleagues.

In evaluating experience for Librarians GS-13 through GS-15, specifically, primary consideration will be given to the extent to which applicants possess the following knowledges and abilities:

1. Understanding of the techniques and methods of library science.
2. Knowledge of a specific subject-matter field.
3. Ability to plan a library program to meet the needs of the agency.
4. Ability to carry out broad library programs.
5. Ability to plan and coordinate the work of assistants.
6. Ability to train and develop a staff.
7. Ability to maintain good working relationships with the staff and other associates.
8. Leadership in the field of library science.

NONQUALIFYING EXPERIENCE AND TRAINING

No credit will be given toward meeting the experience requirements for positions in this series for work in the following situations:

1. Work with collections of fiction, recreational or other reading material where no formal cataloging or classification of material is performed.
2. Experience in wholesale or retail bookstores, circulating fiction and club libraries, or hospital record departments.
3. Experience as a library page, as a library attendant or as a clerical worker, even though the duties included such work as charging and discharging books or typing catalog cards or orders for books and materials.
4. Nonprofessional work in a library on a part-time basis (e.g., military duty) or on a volunteer basis.
5. No credit will be given for training in the particular use of libraries and library facilities such as is given in orientation courses to college freshmen.

WRITTEN TESTS

Applicants for all grades who (1) have a master's degree or the required education in library science, or (2) have a 5th-year bachelor's degree in library science, will *not* be required to take a written test.

Applicants for *all grades* who qualify on the basis of experience alone or a combination of experience and education *must pass a subject-matter test* in library science. This written test is designed to measure the candidate's knowledge of the fundamentals underlying professional library science and his understanding of its methods and techniques and their applications to effective library science. Questions will be asked on facts, principles, applications, tools, practices, and theory of professional librarianship as found in a variety of libraries (e.g., book selection; cataloging and classification; reference and bibliography; circulation and related services).

When the subject-matter test is required it may not be waived in in-service placement actions except when (1) the employee was properly appointed as a qualified librarian and is currently serving in a GS–1410 librarian position, or (2) has previously served at least 6 months in a GS–1410 librarian position as a result of eligibility gained as a qualified librarian under an appropriate examination and is being reassigned to a librarian position. (*Note:* Individuals appointed as Librarian (Trainee) will be required to take the subject test for promotion to GS–7 when they do *not* possess or acquire the educational requirements specified in paragraphs A or B for grade GS–7.)

SPECIAL PROVISIONS

A. *For all librarian positions*

At GS–9 and above, Librarian positions concerned with acquisition, cataloging, or reference work are sometimes highly specialized. In filling such positions, consideration may be limited to those eligibles who have had experience in the appropriate specialization at a qualifying level of difficulty.

B. *For librarian positions requiring specialized subject or language knowledges*

In filling positions at any grade level which call for a knowledge of foreign languages or special subjects such as law, medicine, physical sciences, etc., selection *must* be made from among eligibles who are qualified in these special areas.

SPECIAL PROVISION FOR FILLING POSITIONS OF LIBRARIAN (TRAINEE), GS–5

This is a special provision which may be used when there is a shortage of candidates who are fully qualified for GS–7 level librarian or librarian (appropriate specialization) positions. This provision is included because of the reported dearth of fully-qualified librarians. It is intended for use in those situations where the Librarian (Trainee) can be expected to complete his/her education or training in library science within a reasonable period of time, and thus meet requirements for librarian positions at the GS-7 level.

Under this provision, applicants for positions of Librarian (Trainee), GS-5 must meet the following requirements: completion of a full 4-year course of study in an accredited college or university which meets all academic requirements for a bachelor's degree, or equivalent experience.

—Qualification of candidates under this provision is demonstrated by eligibility on a civil service register, or an appropriate subject-matter register (e.g., the Chemist register for Librarian (Trainee) positions requiring some knowledge of chemistry). Appointing officers may request certification of eligible candidates with major study in a subject-matter field which is considered appropriate for the position being filled.

Individuals hired as Librarian (Trainee), GS-5, *may not* be employed or promoted to a position of Librarian GS-7 until they fully meet the requirement specified for GS-7 librarian positions.

PHYSICAL REQUIREMENTS

See part II, Physical Requirements, paragraph 2; in addition, applicants must possess emotional and mental stability.

Qualifications Standards

GS-1410

GS-5 (Trainee)

1. 4 year course of undergraduate study meeting all bachelor's degree requirements or equivalent experience

GS-7

1. One full academic year of graduate study in library science and bachelor's degree.
2. Completion of all requirements for 5th year bachelor's degree + 1 year of professional library experience at GS-5 level or above
3. Combination in equivalent quality of 5 years of college level education and/or experience (30 semester hours = 1 academic year); requirements:
    a. Passing subject matter test in library science +
    b. College level education + 1 year of library experience at GS-5 level for library technician, information specialist, or subject matter specialist
    c. Two years of experience at GS-5 technician level or above
4. For subject or language speciality additional requirements:
    a. Bachelors degree with 24 hours credit in special field as 15 hours credit in major subject experience applicable to position
    b. For law: 24 semester hours of legal study in an accredited law school
    c. 4 years of experience in discipline or subject matter field at level providing equivalent knowledge to that gained through completion of 4 year undergraduate course of study with major in area of specialization
    d. Demonstrated ability to read and translate information from 1 or more foreign languages to English.

GS-9

1. MLS in library science or 2 full academic years of graduate study in library science from accredited library school
2. Requirements for GS-7 (to include passing subject matter test in library science) +

a. 1 year of professional library experience at GS-5 level, 6 months at the GS-7 level or above

b. 1 year of professional experience in subject matter or language required, or masters degree, or 2 full academic years of graduate education in subject speciality required.

GS-11

A. Meet all requirements for GS-9, +

1 year of professional library experience at GS-7 level, or 6 months at GS-9 level or equivalent; for subject or language specialist, 1 year of professional or advanced experience in subject matter or language area appropriate

B. Doctoral degree in library science or 3 full academic years of graduate work in library science

C. MLS or equivalent requirement for GS-9 + PhD or 3 full years of graduate academic study in subject or language speciality

LIBRARY TECHNICIAN SERIES [1] [2]

GS-1411
(p. 1)

Library Aid GS-1/3

Library Technician GS-4/7

Supervisory Library Technician GS-4/9

DESCRIPTION OF WORK

Positions in this series constitute what is essentially a support occupation. Library Aids and Technicians work in libraries where they provide support and assistance to professional librarians. In the lower grades (GS-1 through 3) assignments frequently involve considerable clerical work and some manual labor. In the higher grades (GS-4 and above) assignments may be specialized or may involve supervisory or administrative responsibilities.

Positions in this series involve duties related to the following library functions: the mechanical preparation of library material; the physical upkeep of library material; care of shelves, files, and equipment; circulation work such as registering borrowers, explaining lending rules, reserving books for library users; acquisitions work such as ordering publications, preparation of book lists, routine correspondence; cataloging work such as making additions to serial shelf list and catalog records, temporary brief, or limited cataloging, processing added copies and new editions; answering factual or directional questions involving the use of standard reference tools and specific, readily available sources. When the library collection includes foreign language publications, positions may require ability to read or recognize identifying information (e.g., titles, authors, dates of publications) in one or more foreign languages. (For a more detailed discussion of duties performed by Library Aids and Technicians, see the classification standard for this series.)

EXPERIENCE AND TRAINING REQUIREMENTS

Applicants must have had general and specialized experience of the type described below, in the amounts indicated for each grade.

Grade	*General experience (years)*	*Specialized experience (years)*	*Total experience (years)*
GS-4	1	1	2
GS-5	1	2	3
GS-6	1	3	4
GS-7 and above	1	4	5

NOTE: For Supervisory positions, see the qualification standard in part III of this handbook for Supervisory Positions in General Schedule Occupations.

General experience is progressively responsible clerical or office work of any kind which has demonstrated the ability to perform satisfactorily at the grade level of the position. General experience may also include work involved in the physical handling of library materials provided this gave the applicant some general knowledge of library rules, regulations, and procedures.

Specialized experience is progressively responsible experience in a library which has included duties similar to those mentioned in the Description of Work paragraph above. Clerical work performed in a library (e.g., work classified to the Mail and File Series, GS-305, or to the Clerk-Typist Series, GS-322) may be credited as specialized experience provided the clerical work has demonstrated the applicant's ability to apply general library operating practices.

Excess specialized experience may be credited as general experience.

For first level supervisory positions, no supervisory experience is required, but supervisory aptitude must have been demonstrated (e.g., evidence of supervisory capacity may be measured by one of the methods described in the qualification standard for Supervisory Positions in General Schedule Occupations.

QUALITY OF EXPERIENCE

→For GS-4 positions, at least six months of the required specialized experience must have been at a level of difficulty comparable to grade GS-3 in the Federal service. For GS-5 positions, at least one year of the required specialized experience must have been comparable to grade GS-4. At GS-6 and above, at least one year of the required specialized experience must have been comparable to the next lower grade, or two years of the required specialized experience must have been comparable to the second lower grade.←

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[1] Qualification standard for Clerk, GS-300-1/3, are to be used for filling position of Library Aid GS-1/3.

[2] This standard has been approved by the Administrator of Veterans' Affairs for use within the Veterans Administration under the provisions of section 4105, title 38, U.S.C.

For any grade level, the required amount of experience will not in itself be acceptable as final proof of qualification for a given grade level. The applicant's record of experience, education or training must show he has the ability to perform the duties and responsibilities of the position.

SUBSTITUTION OF EDUCATION FOR EXPERIENCE

For a maximum of three years of the required experience (one year of general plus two years of specialized experience) study successfully completed in a resident school or institution may be substituted as follows:

General experience only

Successfully completed study in a school above the high school level may be substituted for experience on the basis of one-half an academic year of study (i.e., 18 weeks of substantially full-time study, or 15 semester hours, or the equivalent in quarter or trimester hours) for six months of experience.

Specialized experience

1. For the first year of specialized experience, study successfully completed in a resident school above the high school level may be substituted at the rate of one-half an academic year of study for six months of specialized experience provided such study included subjects closely related to the position being filled, e.g., in library science, in business administration, or training in office routines, or in a subject field appropriate for the library in which the position is located. A full 2-year course of study may be substituted for two years of the required experience (one year general plus one year specialized) and is fully qualifying for the GS-4 grade level.

2. For the second year of specialized experience, study of the quality described in paragraph 1 above may be substituted at the rate of one academic year of study for six months of specialized experience. Therefore, a full 4-year course of this type of study may be substituted for a maximum of three years of the required experience (one year of general plus two years of specialized experience) and is fully qualifying for the GS-5 grade level.

3. Study in library science courses completed in a resident institution above high school level may be substituted for a maximum of two years of specialized experience on the basis of three semester hours of library science for three months of experience. Substitution on the same basis may also be made for the general experience.

Education and training other than that outlined above, e.g., specialized training as a library aid or technician in manpower development programs, at a school for library technicians, or through inhouse courses, will be allowed appropriate credit, depending upon its applicability and extent.

No substitution may be made for the required supervisory experience or for the additional specialized experience required above the GS-5 level.

NOTE: "School above the high school level" means an educational institution (e.g., business or commercial school or college, a secretarial school, a junior college, or a college or university) for which high school graduation or the equivalent is prerequisite and in which the applicant successfully completed study which was not primarily limited to courses in typing and/or stenography.

For the item under "General experience only" and items 1 and 2 under Specialized experience, education in amounts less than one-half of an academic year are not substitutable for experience. One academic year consists of approximately 36 weeks of substantially full-time study, or 30 semester hours, or the equivalent. Semester hours gained in part-time study may be credited at the rate of ½ year for each 15 semester hours (or the equivalent in quarter or trimester hours).

Substantially full-time study in the case of business and commercial schools is the equivalent of at least 20 classroom hours of instruction per week.

WRITTEN TEST

For competitive appointments at GS-4 and above, a written test is required. For competitive appointments at grades GS-1/3, follow the test requirements in the qualification standards for Clerk, GS-300-1/3. The written test should be waived for in-service placement actions at all grade levels.

SELECTIVE PLACEMENT

At GS-5 and above, Library Technicians sometimes specialize in the performance of duties concerned with acquisition, cataloging, reference, circulation, or serials work; or may be required to have some familiarity with specialized terminology or ability to recognize identifying information on foreign language documents. In filling such positions, selection *may* be limited to those eligibles who have had experience in the appropriate work at a qualifying level of difficulty.

SPECIAL REQUIREMENTS FOR POSITIONS INVOLVING PUBLIC CONTACTS

Some library aid or technician positions may involve substantial contact with others. Duties performed require a clear speaking voice, tact, courtesy, and capacity for effective public contacts. In filling such positions competitively and noncompetitively, appointing officers should assure themselves by reference checks, personal interviews, or other appropriate means that applicants possess these qualities to the degree necessary for satisfactory performance of the duties of such positions.

SUGGESTIONS FOR EVALUATING EXPERIENCE IN IN-SERVICE PLACEMENT ACTIONS

In ranking individuals for in-service placement actions, detailed facts about position requirements can be more easily established. As a result, in establishing lists of qualified candidates, it is possible to evaluate experience or training in a way that best relates to the demands of the position being filled. For example:

(1) For a position requiring specialized experience in a particular function, such as cataloging, experience gained in cataloging titles being added to the collection would be ranked as top level experience. Experience gained in filing catalog cards would be ranked at a lower level, or nonqualifying, depending upon the requirements of the job.

(2) For a position requiring the ability to identify and record titles *in foreign languages*, experience gained in searching for publications in the particular foreign languages required by the position would be ranked as top level experience. Experience gained in similar processing functions not requiring foreign language ability would be rated as nonqualifying.

(3) For a position requiring familiarity with legal terminology, content and classification scheme of a law library, experience gained in searching duties in a legal collection would be ranked as top level experience. Experience gained in searching duties in a general collection including some legal publications probably would be ranked at a lower level depending upon the extent of the legal collection.

(4) Outside education or in-house training related to the requirements of the position would be ranked higher than other qualifying education, e.g., education or training in library work directly related to the position would be ranked higher than education or training in administrative work.

In evaluating candidates, it is suggested that information be secured from former supervisors to elicit information as to demonstrated abilities, type of work experience, and past responsibilities. Other things being equal, the greatest credit should be given to those with the broadest experience and to those who demonstrate the most potential for advancement.

PHYSICAL REQUIREMENTS

See part II, Physical Requirements, paragraph 2.

Qualifications Standards

GS-1411 (Library Technician based on experience in particular situation)
(Based on practical working knowledge of collection)

Library Aid-GS-1 through GS-3

GS-1

No previous experience required; on-job training; required tasks are simple.

No personal contacts outside immediate organization

Work under close supervision of higher grade employee: follows specific instructions.

GS-2

No previous library experience required. Limited training in or acquaintance with the library's services and procedures

Limited personal contact with library clientele - i.e., provision of directional information such as location of catalogs, special reading rooms

Works under close supervision of Librarian or Supervisory Library Technician, applying governing techniques.

GS-3

Working knowledge and understanding of library services, practices and procedures relating to specific function; knowledge usually gained through instructions on the job. Previous library experience desirable. May require training in recognition of book identification in foreign languages; specialized terminology requires understanding of library's basic purpose.

Has personal contacts with the other library employees, agency personnel, general users; gives routine and current information; explains governing clerical procedures and gives simple, clear-cut answers to inquiries.

Responsible for making routine decisions in applying established policies, rules and procedures. Works under supervision of Librarian or Supervisory Library Technician or higher-grade employee; under close supervision receives training for more complex duties of GS-4 level.

Library Technician - GS-4 and above

GS-4

General experience - 1 year (clerical or office work)

Specialized experience - 1 year (library experience). 6 months of specialized experience at level of difficulty comparable to next lower grade level. Written test required. Education substitution for general experience. 1/2 academic year for 6 months experience; for specific experience 1/2 academic year for 6 months if study in related field; i.e., 2 year course of study is fully qualifying for GS-4. General Experience - 1 year.

GS-5

Specialized experience - 2 years. 1 year of specialized experience at level of difficulty comparable to next lower grade in field. Written test is required. 2nd year of specific experience may be substituted for by 1 academic year of study for 6 months; full four year course is fully qualifying for GS-5 level; study in library science may be substituted for maximum of 2 years of specific experience on basis of 3 semester hours for 3 months experience.

GS-6

General experience - 1 year
Specialized experience - 3 years
Written test is required

GS-7

General experience - 1 year
Specialized experience - 4 years
Written test is required

GS-8

Supervisory experience

GS-9

Supervisory experience

TECHNICAL INFORMATION SERVICES SERIES

Technical Information Specialist

Supervisory Technical Information Specialist

Technical Information Officer

(appropriate specialization)

GS-5/15

SPECIALIZATIONS

The subject-matter knowledge for the Technical Information Specialist typically covers a broad field, rather than a deep subject knowledge and competence related to a specific discipline or field of interest, or a full knowledge of the state of the art. Some positions require foreign language proficiency to read documents published in languages other than English. The following specializations are authorized:

Subject specializations

Biological Sciences
Medical Sciences
Physical Sciences
Social Sciences
Business and Industry
Engineering
Education
Fine Arts
Humanities
Law
Music

Foreign language specializations

Romance
Slavic
Germanic
Oriental
Arabic

DESCRIPTION OF WORK

Positions involve work concerned with analyzing and transmitting the intellectual content of scientific, technological, or other specialized information. The specialists perform a variety of functions, or the work may be specialized in one functional area. Duties include acquisition, analysis of subject content of the documents acquired, indexing and preparation of abstracts or extracts. Some positions involve responsibility for terminology control, such as development of thesauri, lists of descriptors, subject heading lists, etc. Other employees analyze questions from users and perform literature searches; they prepare replies in the form of documents, bibliographies, or specific answers or units of information. Also included are duties and responsibilities involved in the direction, administration, or coordination of technical information services.

Some assignments include the application of specific techniques or the performance of limited aspects of the work of the professional librarian. These employees have knowledge of a professional, technical, or other specialized subject matter, and, in most cases, are taught the required library techniques on the job.

Some assignments require understanding and application of the special techniques, methods, and devices of a semi- or fully-automated documentation system.

BASIC REQUIREMENTS

For grade GS-5—

As a basic requirement, applicants must have education or experience as described under A, B, or C below.

A. A full 4-year course of study in an accredited college or university which meets all academic requirements for a bachelor's degree, and (1) which has included at least 24 semester hour credits in the physical sciences, biological sciences, social sciences, or other specialized subject-matter field, for which the applicant is being considered; or (2) in any combination of subjects which included at least 15 semester hour credits in a major subject (such as physics or chemistry) which is especially applicable to the position for which the applicant is being considered.

B. Four years of successful and pertinent experience of such nature and level to provide (1) a knowledge of the basic principles, theories, practices, techniques, terminology and expressions of a discipline or subject-matter field; an understanding of the standard methods, procedures, and techniques of research and analysis in the subject-matter field; ability to acquire additional information about the field and related fields; and some knowledge of literature resources in the field; and, where appropriate, (2) ability to read and comprehend nontechnical material in one or more foreign languages.

Such experience should be equivalent to that which would have been acquired through successful completion of a full 4-year curriculum in an accredited college or university with major study in appropriate subjects, or combination of subjects, as specified in item "A" above.

C. Any time equivalent combination of experience as described in item "B" with education as described in item "A."

For grades GS-7 and above—

In addition to meeting the experience or education requirements for GS-5, applicants for higher grades must have the amount and kind of advanced experience indicated below:

Grade:	*Years of advanced experience*
GS-7	1
GS-9	2
GS-11/15	3

Advanced experience consists of the performance of work which has provided the applicant with the professional, technical, language, or other specialized knowledges and abilities to perform the work of the particular position for which he is being considered. The work experience should demonstrate the applicant's capacity:

(a) to perform, supervise, or direct one or more of the functional areas of work covered by this series, e.g., indexing, preparing abstracts, performing literature searches, preparing bibliographies, developing thesauri or lists of descriptors, etc.; or

(b) to acquire an understanding of abstract ideas and theoretical concepts; to keep informed and recognize changes, advancements and new developments in the particular field; to recognize and understand subtle variations and deviations from standard practices or those which are significant from a research point of view; to understand and recognize the co-relationship of information in related fields; to make refined observations and to recognize or interpret scientific implications; to learn about current research efforts in the area of concern; to keep abreast of new methods or techniques, new equipment or systems; to maintain up-to-date information on the state of the art; and/or

(c) to read or translate material in two or more foreign languages, requiring a specialized vocabulary (e.g., technical, legal, scientific, or other subjects of comparable difficulty) and knowledge and comprehension of the subject matter.

Advanced experience may have been gained in positions requiring substantial subject-matter knowledge of the field(s) and/or foreign languages involved such as:

a. Technical Information Specialist (such as indexer, abstracter, literature searcher, bibliographer);
b. Librarian;
c. Technical Writer or Editor;
d. Intelligence Specialist;
e. Translator;
f. Professor, teacher, instructor of college level courses;
g. Subject-matter specialist (such as chemist, biologist, psychologist, engineer, attorney, etc.).

SUBSTITUTION OF EDUCATION FOR ADVANCED EXPERIENCE

Full-time* graduate education may be substituted for experience on the following basis. The education must have equipped the candidate with the knowledge and ability to perform fully the work of the position for which he is being considered.

a. *For 1 year of advanced experience.*—One full academic year of graduate education in a subject field directly applicable to the position. (This amount and kind of education meets all the requirements for grade (GS-7.)

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*Part-time graduate education is also accepted at the rate of 30 semester hours (or the equivalent) for 1 year of specialized experience.

b. *For 2 years of advanced experience.*—Completion of all requirements for a master's or an equivalent degree, or 2 full academic years of graduate education, which is in a subject field directly applicable to the position. (This amount and kind of education meets all the requirements for grade GS–9.)

c. *For 3 years of advanced experience.*—Completion of all requirements for a doctoral degree (Ph. D., or M.D. or equivalent, or 3 full academic years of graduate education, which is in a subject field directly applicable to the position. (This amount and kind of education meets all the requirements for grade GS–11.)

d. *Alternate requirements.*—

(1) Superior academic achievement at the baccalaureate level is qualifying at grade GS–7. The pertinent criteria in section III of part II, Instructions to Users, of this handbook must be met.

(2) Completion of a total of at least 6 years of legal and pre-legal education which meets all the requirements for an LL.B. or J.D. degree will provide eligibility in full at grade GS–9 for positions requiring legal knowledges.

LEVEL AND QUALITY OF EXPERIENCE

For grades GS–11 and below, at least 6 months of the required advanced experience must have been at a level of difficulty comparable to that of the next lower grade, or 1 year must have been at a level of difficulty comparable at least to that of the second lower grade in the Federal service. For grades GS–12 and above, at least 1 year of the required advanced experience must have been at a level of difficulty comparable to that of the next lower grade in the Federal service.

For any grade, the required amount of experience will not in itself be accepted as proof of qualification for a position. The quality of experience, rather than the length of time employed, will be given primary consideration. The applicant's total education and experience must give positive evidence of ability to perform adequately the duties of the particular position for which he is rated eligible.

When education is combined with experience in order to meet length of experience required for any given grade, the applicant must have had the quality of experience appropriate for that grade.

SUPERVISORY AND OFFICER POSITIONS

For supervisory positions, see the qualification standard for "Supervisory Positions in General Schedule Occupations," in part III of this handbook.

For "technical information officer" positions, candidates must meet all other requirements for the grade of the position and also show that they possess administrative and managerial ability. Typically, at higher grade levels, management responsibilities increase and there is less preoccupation with direct line supervision of detailed technical information services work. Candidates for "officer" positions must have demonstrated, for example, the ability to perform successfully duties such as planning, organizing, directing, coordinating, or developing programs, work methods, and procedures; planning or conducting management studies; estimating requirements for staff and supplies; and coordinating activities among different units.

WRITTEN TEST

No written test is required for positions above grade GS–7 for competitive or in-service placement actions.

Competitive appointments to grades GS–5 and GS–7 will be made on the basis of selective certification from the current register resulting from the Federal Service Entrance Examination. Where scientific and technical subject-matter knowledge is required, an appropriate register which is currently in existence will be used.

BASIS OF RATING

Applicants for grades GS-9 and above will be rated based on an evaluation of the applicants' experience, education, and training.

PHYSICAL REQUIREMENTS

See part II, Physical Requirements, paragraph 3; in addition, applicants must possess emotional and mental stability.

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Qualifications Standards

GS-1412

GS-5

A) 4 years in course in college or university meeting requirements for bachelor's degree; with 24 semester hour credits in physical, biological, social sciences, or any combination of subjects including at least 15 semester hours credits in a major subject applicable to position for which applicant is being considered.

B) Four years of pertinent experience providing a knowledge of basic principles, theories, etc. of a discipline or subject-matter field; ability to acquire additional information about the field and related fields; understanding of standard methods in subject-matter field; where appropriate, ability to read and comprehend nontechnical material in one or more foreign languages. Experience equivalent to 4 year curriculum in college or university.

C) Any time equivalent of experience and education in A and B above.

GS-7

1 year of advanced experience in addition to above. Advanced experience includes performance, supervision or direction of one or more functional areas of work, i.e., indexing, preparation of abstracts, performing literature searches and bibliographies, developing thesauri or lists of descriptors; four years of pertinent experience providing a knowledge of basic principles, theories, etc. of a discipline or subject-matter field; ability to acquire additional information about the field and related fields; where appropriate, ability to read and comprehend non-technical material in one or more foreign languages. Experience equivalent to 4 year curriculum in college or university.

Any time equivalent of experience and education in A and B above

Experience may have been gained in subject-matter fields and/or foreign languages. Titles such as Technical Information Specialist, Librarian, Technical Writer or Editor, Intelligence Specialist, Translator, Professor, teacher, instructor of college level courses, subject-matter specialist, or 1 year of graduate education, or superior achievement at the baccalaureate level.

GS-9

2 years of advanced experience or substituted graduate education --completion of requirements for a Master's or equivalent degree; or 2 full academic years of graduate education in subject field directly applicable to the position; or completion of a total of 6 years of legal

and pre-legal education which meets requirements for LLB or J.D. degree if position requires legal knowledge.

GS-11

3 years of advanced experience or completion of requirements for doctoral degree, or 3 full academic years of graduate education.

GS-12

At least one year of advanced experience at a GS-11 level of difficulty, in addition to all requirements for GS-11.

GS-1411 LIBRARY TECHNICIAN SERIES GS-1411

This series includes positions involving nonprofessional or technical work in libraries which are administered in accordance with the practices and techniques of professional librarianship. Such work primarily requires a practical knowledge of library functions and services; and ability to apply standard library tools, methods, and procedures to the service needs of the particular library.

With the publication of this standard, the explanatory material published in September 1957, under the title and code of Library Assistant Series, GS-1411, is rescinded.

GS-1410 LIBRARIAN SERIES GS-1410

This series includes all positions involving work that primarily requires a full professional knowledge of the theories, objectives, principles, and techniques of librarianship. An inherent requirement of these positions is a knowledge of literature resources. Some positions also require a substantial knowledge of the subject matter involved and/or a substantial knowledge of foreign languages. Such work is concerned with the collection, organization, preservation, and retrieval of recorded knowledge in printed, written, audio-visual, film, wax, near-print methods, magnetic tape, or other media. Typical library functions include the selection, acquisition, cataloging and classification of materials, bibliographic and readers' advisory services, reference and literature searching services, library management and systems planning, or the development and strengthening of library services.

* * *

The librarian occupation in Government involves selecting, acquiring, organizing and disseminating knowledge and information suited to the needs of the agency served and the broader national and international communities to which the library has responsibility. This includes an understanding of the media through which knowledge is recorded and transmitted, and an understanding of the clientele, with ability to analyze their requirements, to anticipate future needs, and to provide interpretation and guidance in the use of pertinent information materials.

GS-1412 TECHNICIAL INFORMATION SERVICES SERIES GS-1412

This series includes positions which are primarily concerned with the direction, administration, development, coordination, or performance of work involved in processing and transmitting scientific, technological, or other specialized information. Duties performed require a broad knowledge of one or more professional, scientific, or technical disciplines or fields of interest sufficient to understand the significance and relationships of the concepts and ideas contained in the information; a practical knowledge of documentation or library techniques; and in some cases, a knowledge of foreign languages.

This series does not include (a) positions requiring a professional knowledge of librarianship; or (b) positions primarily requiring professional knowledge and competence related to a specific discipline or field of interest, or a full knowledge of the state of the art, which have their career relationships in the subject-matter field.

The technical information specialist provides information services related to interdisciplinary or mission-oriented literature requiring utilization of a broad variety of knowledges gained through education or experience. For example, a position of Technical Information Specialist (Physical Sciences) concerned with indexing mission-oriented literature may require major study in chemistry and/or physics, plus substantial knowledge of one or more other subjects such as mathematics, electronics, geology, metallurgy, meteorology, astronomy, ceramics. The technical information specialist builds upon these broad and varied knowledges and develops an expertise in working with the literature related to his specific fields of interest, and skill in the special techniques, methods and devices of information processing.

Based upon a knowledge of the subjects involved and the literature of the specific field:

(a) Technical information specialists typically serve in a document or information facility which is not a library, e.g., a documentation center or clearinghouse for the secondary distribution of technical reports. They are trained on the job, or in specialized training or education courses, in the particular documentation or information retrieval techniques used by the facility. A subject specialist, a librarian, a technical information specialist, or a program manager is responsible for administration of the document or information facility depending upon the needs of the organization.

(b) Some technical information specialists serve as staff members of a library. They are trained on the job, or in specialized training or education courses, to perform specific library routines or techiques (e.g., in subject cataloging, indexing, reference or literature searching). A professional librarian typically is responsible for the library work performed or for the library program.

EXCLUSIONS

Excluded from the GS-1411 series are:

1. Positions in which typing, stenography, or other clerical work governs the grade level; also positions at GS-3 and below which include library aid work in combination with other duties requiring the services of a qualified typist, stenographer, or dictating machine transcriber. (See additional instructions for classifying mixed positions in the Clerk-Stenographer and Reporter Series, GS-312; the Clerk-Dictating Machine Transcribing Series, GS-316; and the Clerk-Typist Series, GS-322).

2. Positions in which the clerical work is primarily of a general office nature (e.g., personnel clerk, accounts maintenance clerk, file clerk, etc.). (See individual series for these positions.)

3. Positions which require a full professional knowledge of the theories, principles, and techniques of librarianship. (For a more detailed discussion of the duties of the professional librarian, see the Librarian Series, GS-1410.)

4. Positions involving specific library techniques and functions when the work requires professional, scientific, or other specialized training in the subject matter involved. (For a more detailed discussion relating to the classification of such positions, see the Technical Information Services Series, GS-1412.)

5. Positions involving clerical or nonprofessional duties concerned with the collection, storage, or retrieval of publications, audio-visual materials, magnetic tape, or other information media when the collection is not maintained in accordance with professional library practices and procedures. (See the appropriate clerical or nonprofessional series, e.g., the Archives Assistant Series, GS-1421; the Mail and File Series, GS-305; or the Computer Aid and Technician Series, GS-335.)

EXCLUSIONS

Excluded from this series are:

1. Positions involving library routines or techniques which may be assigned to individuals who are trained or experienced in a professional, scientific, technical, or other specialized discipline or field of interest, but who do not meet the qualifications for a professional librarian.

   a. Positions will be classified to the Technical Information Services Series, GS-1412 when the work performed requires (1) a practical knowledge of documentation or library techniques (i.e., typically learned on the job) and (2) a broad knowledge of one or more professional, scientific, or technical disciplines or fields of interest sufficient to understand the significance and relationships of the concepts and ideas contained in the literature.

   b. Positions will be classified to the appropriate subject-matter series when the work primarily requires professional knowledge in depth related to a specific discipline or field of interest, or a full knowledge of the state of the art, in analyzing, interpreting, evaluating or synthesizing the literature.

   c. Positions involving professional services in a program of education and training will be classified to the Education and Vocational Training Series, GS-1710, when the work requires (1) primarily the application of a knowledge of the principles, practices, and techniques of education and/or accreditation as a teacher by a recognized licensing body; and (2) some knowledge of library science (e.g., positions of teacher-librarian or school librarian filled by recruitment of qualified teachers). Positions of school librarian are classified to the Librarian Series, GS-1410 when the work primarily requires a full professional knowledge of librarianship.

2. Positions involving library routines or techniques (a) when adequate training cannot be acquired by general office experience, and (b) when the duties performed do not require the professional competence of a trained librarian, or the knowledge of one or more professional, scientific, or technical disciplines. See the Library Technician Series, GS-1411.

3. Positions concerned with fundamental areas of scientific investigation leading to better information systems when the work is not primarily based upon a professional knowledge of librarianship.

Incumbents of such positions are being referred to by some individuals, groups, or organizations as "information scientists".

EXCLUSIONS

Excluded from this series are the following classes of positions:

1. Positions which primarily require professional subject knowledge in depth relating to a specific discipline or field of interest, or a full knowledge of the state of the art. Such positions typically have their career relationships in the subject-matter field and will be classified to the appropriate subject-matter series.

To illustrate, positions are excluded when they require professional subject competence to interpret, evaluate, and elucidate the significance, pertinence, and relevance of specific units of information in the analysis, storage, and retrieval of specialized information (e.g., when there is a continuing requirement for a professional chemist to analyze and interpret the chemical literature; or when the job primarily requires an attorney to conduct legal searching for the purpose of preparing legal opinions).

2. Positions which primarily require a full professional knowledge of the theories, objectives, principles, and techniques of librarianship. See the Librarian Series, GS-1410.

3. Positions sometimes referred to as "information scientist" which are concerned with fundamental areas of scientific investigation leading to better information systems. Illustrations of such scientific research include, e.g.,

   a. research on the analysis and structuring of complex information systems concerned with the interactions between machines, machines and their environments, and with systems comprised of machines, humans, and environments;

   b. research on concepts of machine organize concerned with the logic, structure and organization of information processing machines-leading to development of machines that can process non-numerical data, recognize patterns, and classify and act upon information rapidly and automatically;

   c. research in adaptive and self-organizing systems to discover machine programs, logic structures, procedures and concepts enabling machines to perform tasks previously regarded as requiring human thought;

   d. research in language and linguistics aimed toward better understanding of the properties of spoken and written language as the principal medium for the communication of messages-research to make it possible to build automatic information systems that can "read", abstract, index and retrieve on demand written or spoken text, systems that can translate from one spoken language to another or produce permanent transcripts of spoken language;

The scientific investigations which they conduct are derived from or related to specialized fields such as mathematics, logic, linguistics, psychology, computer technology, operations research, the graphic arts, communications, library science, management, etc. Positions concerned with such scientific investigations will be classified to the appropriate discipline or subject-matter series with which they are primarily identified. That is, if the research is primarily based upon a professional knowledge of library science, the position will be classified to the Librarian Series, GS-1410. But if, for example, the research is primarily based upon a knowledge of mathematics, psychology, or operations research, the positions will be classified respectively to the Mathematics Series, GS-1520, the Psychology Series, GS-180, or Operations Research Series, GS-015.

4. Positions primarily requiring a specialized knowledge of computer technology, or other mechanical, electrical, or electronic devices for the operations and maintenance of a library. See the appropriate series in the GS-300 Group.

5. Positions involving professional archival work including the assembling, appraising for historical significance, cataloging, classifying, or editing and publishing of historic documents, public records, and exhibits. See the Archivist Series, GS-1420.

6. Positions involving the maintenance of catalogs, furnishing information concerning prices, solicitation of bids and placing of contracts for requested publications or periodicals which primarily require a knowledge of purchase regulations, procedures, and basic laws. See the appropriate series relating to the purchase of items of supply.

7. Positions primarily requiring a knowledge of public information techniques, ability to utilize communications media, or writing and editing skills. See the Public Information Series, GS-1081; the Writing and Editing Series, GS-1082; and the Technical Writing and Editing Series, GS-1083.

8. Positions primarily concerned with making written translations from or into foreign languages where the ultimate objective and main purpose of the job is the production of accurate translations of written material prepared by others. See the Translator Series, GS-1045.

9. Positions involving the application of accepted theories and techniques of medical record library science in the development, maintenance, analysis, and use of diagnostic and therapeutic medical records. See the Medical Record Librarian Series, GS-669.

10. Positions involving clerical or others subordinate work which requires a knowledge and understanding of the administrative, clerical or specialized procedures and operations, routines or techniques, peculiar to the collection, organization, storage, searching or retrieval of information media, files or other records, (e.g., file clerks, clerks concerned with distribution of publications, or clerical "tape librarians"). See the appropriate clerical or subprofessional series.

e. theoretical research in the information sciences concerned with abstract studies of the nature, organization and structure of knowledge-studies may involve reliability theory, switching theory, self-reproducing machines, formal logic (as distinguished from mathematical logic), computability theory, and certain aspects of analytic and linguistic philosophy.

These scientific investigations are derived from or related to specialized fields such as mathematics, logic, linguistics, psychology, computer technology, operations research, the graphic arts, communications, library science, management, etc. Positions concerned with such scientific investigations will be classified to the appropriate discipline or subject-matter series with which they are primarily concerned, i.e., to the Mathematics Series, GS-1520; the Psychology Series, GS-180; the Operations Research Series, GS-015; the Librarian Series, GS-1410; the Electronics Engineering Series, GS-855, etc.

4. Positions primarily requiring a specialized knowledge of computer technology, or other mechanical, electrical, or electronic devices for operation and maintenance of an information system. See the appropriate series in the General Clerical and Administrative Group, GS-300.

5. Positions involving professional archival work, including the assembling, appraising for historical significance, cataloging, classifying, or editing and publishing of historic documents, public records, and exhibits. See the Archivist Series, GS-1420.

6. Positions involving the maintenance of catalogs, furnishing information concerning prices, solicitation of bids and placing of contracts for requested publications or periodicals which primarily require a knowledge of purchase regulations, procedures, and basic laws. See the appropriate series relating to the purchasing of items of supply.

7. Positions involving clerical, or other subordinate work which requires a knowledge and understanding of the administrative, clerical, or specialized procedures and operations, routines or techniques peculiar to the collection, organization, storage, searching or retrieval of information media, files or other records (e.g., indexing at the "word level" not requiring professional, scientific or technical knowledge of the subject; or classifying, filing, and searching duties requiring knowledge of established file methods and procedures). See the appropriate clerical or subprofessional series, such as the Mail and File Series, GS-305, or the Library Technician Series, GS-1411.

8. Positions primarily requiring a knowledge of public information techniques, ability to utilize communications media, or writing and editing skills. See the Public Information Series, GS-1081; the Writing and Editing Series, GS-1082; and the Technical Writing and Editing Series, GS-1083.

9. Positions primarily concerned with making written translations from or into foreign languages where the ultimate objective and main purpose of the job is the production of accurate translations of written material prepared by others. See the Translator Series, GS-1045.

10. Positions involving administration of agency or departmental programs for technical information systems (including, e.g., creation, technical writing and editing, publication, dissemination, interpretation, and utilization of the information) which are interdisciplinary in nature. They should be classified based upon the primary knowledges required and possessed by the incumbent, e.g., (a) when subject-matter knowledges are required, the position will be classified to an appropriate subject-matter series, such as the General Physical Science Series, GS-1301; (b) when professional knowledge of librarianship is required, the positions will be classified to the Librarian Series, GS-1410; (c) when knowledge of management is the primary requirement, the position will be classified to an appropriate management series.

11. Positions responsible for management of an information center when the primary knowledge requirements are not those of a professional librarian. Such positions will be classified based upon the primary knowledge requirements, e.g., (a) to the appropriate subject-matter series, such as the General Physical Science Series, GS-1301; (b) to a broader information series, such as the General Arts and Information Series, GS-1001; (c) to the Technical Information Services Series, GS-1412; or (d) to an appropriate management series.

OCCUPATIONAL INFORMATION

Positions of librarian are located in a variety of different types of Government libraries or other information facilities. These include, e.g.:

(1) the Library of Congress, the research library which functions as the library for the legislative branch as well as the national library of the United States. The library includes many specialized information services (e.g., the National Science Referral Center);

(2) the National Agricultural Library;

(3) the National Library of Medicine;

(4) libraries which support the research or operational programs of laboratories, bureaus, agencies, or departments;

(5) libraries and field station libraries at defense installations or other field locations which provide educational, informational, cultural, technical, and recreational services;

(6) libraries which provide library service as an integral phase of a medical program and domiciliary program;

(7) the Public Library System of the District of Columbia which combines educational, informational, cultural, and recreational programs.

Functions performed in the Federal Government libraries vary greatly depending upon the mission of the parent organization; the constituency; and the objectives to be accomplished. Many of the services performed, however, are similar in nature.

Federal libraries may operate as (A) general libraries, (B) research libraries, (C) special (or technical) libraries, or (D) academic libraries. These different categories of libraries are described briefly below. However, many of the libraries have characteristics pertaining to more than one category. For example, a special library may also include a research collection; a general library serving a military installation may also have a specialized collection or a research collection in one or more subject areas, and may provide services similar to those of a special or academic library.

(A) The General (Public) Library

The general (public) library provides a source of educational, cultural, or recreational information to all ages and groups in the general population or clientele served. From the spectrum of recorded knowledge, the general library collects the printed and audio-visual materials needed to enrich the individual and group life of its constituency. The materials cover a variety of forms: books, periodicals, pamphlets, newspapers, pictures, slides and films, music scores, maps, recordings, and the various forms of micro-reproduction. The collection may include materials in foreign languages.

INTRODUCTION

A. The need for technical information services

1. The dimensions of the problem of exploiting recorded knowledge have been changing. Today, the rapidly expanding research facilities of our Nation, and other nations, are pouring forth a cascade of new knowledge so great that even devoting all of one's waking hours to reading would not make it possible for the student, the educator, the researcher, or the practitioner in any field to keep up with all the reports of interest or pertinence to their work which are appearing in the literature.

2. The various fields of scholarship are becoming increasingly complex and interdisciplinary. Each field impinges upon and draws heavily from other fields, and, to some degree, on every other field of human endeavor. These subjects, as well as the "core" of a particular field are being constantly augmented by new knowledge resulting from the theoretical, experimental, and clinical investigations that are going forward at all times.

In the wide range of subjects that encompass each area of scholarship, the body of knowledge already available must be fully utilized to assure that research is fully productive, that teaching is based on the most modern knowledge, and that practice employs the most modern advances. Superimposed on this need is the need of management, whether in education, research, government, or foundations, for insight into the performance of those they are supporting, as measured against what has been published by others.

3. Scientific thought and activity are not confined to any one country or area. This has implications that are widespread and complicated. Our scientists and technicians, to be abreast of developments in their respective fields, must be aware of what their colleagues in other countries are thinking and doing. They must know in as much detail as possible the exact nature of investigations being conducted in foreign institutions, and they must know it as promptly as possible. Reports, documents, or other information media procured through a worldwide network of field stations, exchange agreements, specialized collection agencies, and international organizations eventually encounter the language barrier. They can serve little practical use until they can be translated or condensed for the use of scientists and technicians who are not fluent in languages other than English.

4. To generalize, the need is for access to knowledge that will provide rapidly, conveniently, economically, and precisely that portion of the literature that will be useful:

— to any individual,

— at any particular time,

— for any particular problem,

— and in any form that is useful to him, The general library organizes and makes available these resources so that they are convenient and easy to use. It provides a program of reader's advisory, reference and information service to the public. It guides people of all characteristics and ages in interpretation and use of the material; it enables as many as possible to apply the record of what is known to their daily lives; and it assists them in their quest for knowledge and information. The general library's collection is used to facilitate informal self-education; to enrich and further develop subjects being studied in a formal educational program to meet informational needs arising out of everyday activities; to support the educational, civic and cultural activities of groups and organizations; and to encourage wholesome recreation and constructive use of leisure time.

General libraries in the military service, hospitals, or other special service activities may also provide materials and services to support the mission of the organization and all tenant activities. When so designated, they also support resident courses offered by colleges and universities, and meet accreditation standards of these institutions.

(B) The Research Library

A research library is an aggregation of all sorts of book and periodical and manuscript materials, assembled together not for sustained or for pleasurable reading -indeed, in a sense, not for reading at all-but for "research", that is, for the purpose of scholarly investigation. Research libraries are, primarily, the stored-up knowledge of the race, warehouses of fact and surmise, in all their forms and infinitely remote ramifications, the raw materials from which our humanists and our scientists are going to develop later new facts and fresh surmises. Research materials are in a sense the building blocks of civilization.

Principal materials in the research library are commonly monographs and serials (dating back to first issue where possible). Some large research libraries also maintain collections of theses and special works not formally published. Extensive collections include similar materials from other lands and other cultures and therefore in other languages. The research library provides current and retrospective information services covering a relatively broad subject area. A research library preserves (or maintains for long periods) its collection, thereby providing continuing physical access to these documents.

regardless of:

— where and when it was produced,

— in what language it exists,

— how it must be located and processed.

5. No one individual, no one organization, no one agency, no one country can identify or acquire with absolute certainty all of the articles, papers, reports, and other communication media that contain useful information. Futher, no one individual can read, much less retain in his memory, all of the recorded knowledge that might be of current or future interest.

6. Stated simply, most technical information specialists provide a "reading-analysis-searching service" so they may direct the attention of the seeker of information to that material which is likely to be of interest to him. The technical information specialist reads incoming documents and decides what to record, based both on what his clientele tell him are matters of interest and also on his own prediction of what will be useful for others in the future. As a searcher, he locates material, answers questions, or provides all or portions of documents to the user of the service. In some cases, foreign language proficiency is required to read documents generated in other countries.

B. Information resources

Positions in this series may involve work with any of the diverse information resources-formal publication, audio-visual materials, information publications, unpublished information, intelligence sources.

Positions may be concerned with (1) information contained in completed technical documents and reports, including those in the open literature as well as those originating within the Federal Government and its contractors; (2) information about projects which are in process, authorized, or projected, (3) information about the special areas of competence of scientific and technical personnel working on, or qualified to work on, special projects for the Federal Government, its contractors, or other segments of our society (i.e., industry, research universities, etc.); or (4) information about special facilities and equipment available for use in scientific, technical, or other special projects.

Most positions are concerned primarily with information contained in:

1. Professional, scientific, and technical journals—The journal serves two major roles: a vehicle for the communication of new discoveries and ideas, and a repository of knowledge. Journals play a substantial role in the dissemination of Federal research information. Editors and referees evaluate manuscripts submitted for publication, and sometimes suggest changes. This in effect refines the work and places on each published article an official

(c) The Special (or Technical Reference) Library

The special library is a primary information source in fields pertinent to the purposes and work of the organization it serves. The special library acquires materials and information for the organization's current and future needs, and organizes the materials and information in the mose efficient manner for use by the library's clientele and the library staff on behalf of the clientele. Pertinent materials and information are brought to the attention of users before they are asked for, or in direct response to requests. Resources outside the library may be utilized to answer users' needs.

The special library is responsible for certain specific activities pertinent to its basic function of acquiring, organizing, maintaining, and utilizing a well-chosen collection. These may include, e.g., (1) conducting literature searches for specific facts and information, resulting in bibliographies and reports; (2) indexing or abstracting professional journals, technical reports, etc; (3) compiling library bulletins, which may include abstracts from the current literature or other items of interest; (4) providing current-awareness services, including special and selective dissemination of information; (5) translating foreign language publications; or (6) other personalized services of various types.

The special library collection includes books, periodicals, audiovisual materials, special collections (maps, sheet music, manuscripts, catalogs, etc.). Some collections include various forms and types of materials, such as pamphlets, reprints, translations, yearbooks, theses, dissertations, external and internal technical reports, patents, specifications, standards, etc.

(D) The Academic Library

These libraries support the instructional and research programs of Federal institutions of higher education. Some of the institutions are degree-granting colleges and professional schools on the undergraduate and/or graduate level; for example, the four service academies and technical institutes (such as the Air Force Institute of Technology and the Naval Postgraduate School). These libraries must meet standards set by the appropriate civilian standardizing associations for degree-granting institutions. There are also many non-degree-granting Federal professional schools especially in the Department of Defense. Examples are the Air University, the war colleges, and the several specialized service schools such as transportation and quartermaster schools in the Army.

imprimature. It is this which distinguishes the open published literature from unevaluated technical reports.

Federal information facilities are themselves publishing a large number of journals, state-of-the-art reviews, abstracts, indexes, and bibliographies, as well as books, monographs, and reports of proceedings; in addition, there are innumerable press releases dealing with research results.

2. Technical reports.—Since nearly the beginning of science, the so-called "open" published literature has been the chief means of announcing scientific discovery. About 1920, however, another instrument began to achieve increasing use and significance—the technical report (in briefer or sketchier forms the technical note or technical memorandum).

A report of the National Institutes of Health [1] includes an exposition of the growth of the technical report in Federal research and development:

> Agencies of the Federal Government, now represented principally by the DOD, the NASA, and the AEC, beginning about 1940, embarked on a large scale program in technical development. * * * Industry has dominated overwhelmingly the list of R&D contractors, and has captured the lion's share of the funds; it should come as no surprise then that the reporting traditions prevailing in this culture were accepted and adapted by the cognizant Federal agencies. * * * The scientific and technical information generated by the contract becomes the property of the Federal Government, and its further dissemination is determined by the contracting agency.
>
> Obviously, the need to protect national security by classifying certain types of information played a major role in the evolution of the operation of this system. The system has been extended to cover the reporting of academic "contractors" and scientists and engineers directly employed in Government laboratories. The technical report is of particular and crucial importance in those situations in which a Federal agency or one of its prime contractors serves as manager and coordinator of a complex, interdependent, multi-faceted developmental program such as the production of a new weapons system.

Once the technical report is received by the agency, it is treated to varying degrees of evaluation. Reports may be reviewed only by the project officer or specific research staff person responsible for the contract or grant. In some cases, content analysis of technical reports is made by a scientific or technical analysis board.

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[1] Report to the Select Committee on Government Research by National Institutes of Health.

The librarians in the Federal academic libraries are college librarians. The services they perform are similar to those in special research libraries because many schools have research as well as instructional missions. They also have the special function of guiding resident students in making use of library facilities and resources as an integral part of their educational experience.

(NOTE: There are also Federal school libraries in the armed forces, Indian schools, etc. They are not described in more detail here because of the small number of GS-1410 Librarian positions employed in school libraries.)

For a variety of reasons some reports, after reaching Government agencies, are withheld from unrestricted dissemination. A leading reason is, of course, national security. Another consideration is proprietary interest. Aside from the security and proprietary considerations which restrict dissemination of research information, there are restrictions placed by some agencies on the applicants eligible to receive information from them.

For those reports not, or no longer, subject to control, a major problem is dissemination. Here practice varies almost with the number of agencies receiving reports. Some agencies contract out distribution. Other agencies operate large secondary distribution centers. These centers receive the reports of their own agencies and issue catalogs listing them, together with abstracts and a subject index. Some catalogs also contain abstracts of related technical books, patents, and journal articles appearing in the world's literature.

Some agencies distribute reports of other agencies. About half of the agencies and bureaus send copies of their reports to the Library of Congress and to the Superintendent of Documents (Government Printing Office). The Federal Clearinghouse for Scientific and Technical Information (Commerce) and GPO serve as secondary distribution points for the unclassified reports of most agencies.

COVERAGE

A. DISTINGUISHING BETWEEN LIBRARY AID/TECHNICIAN AND OTHER NONPROFESSIONAL OR CLERICAL POSITIONS

In making a decision as to the appropriate occupational series for positions involving clerical or nonprofessional work in a library, careful consideration is necessary to determine the work which governs the paramount qualification requirements. Involved in making this decision is a consideration of (a) the relative grade level of the work which requires specialized training or experience, and (b) the relative importance in the position of the library aid/technician duties vs. the typing, stenographic, or other specialized skills. Also for consideration is the nature of the career ladder in which the position is located, as well as the needs of management.

There are some rules of thumb which can be applied to decide whether or not positions should be classified in the GS-1411 Series. These are furnished as guides but do not cover all work situations.

The following positions are included in the GS-1411 Series when the paramount qualification requirement is application of a "specialized" knowledge of library operations (i.e., GS-4 and above):

1. Positions which consist solely of library technician duties.
2. Positions in which the library technician duties govern the grade level of the position.
3. Positions which also include duties requiring a qualified typist, stenographer, etc., but the paramount qualification requirement is specialized experience or training as a library aid/technician.

The following positions may be included in the GS-1411 Series even though the positions do not require "specialized" experience in library operations for in-hiring purposes, i.e., at GS-3 and below:

Positions involving library aid duties where the individual is performing work which leads to advancement within the ranks of library aids/technicians to a higher-level nonsupervisory or supervisory position. Under these circumstances, positions which are essentially clerical in nature and do not require "specialized" experience for in-hiring purposes (e.g., GS-3 and below) may be classified to the GS-1411 Series. In these situations, the lower grade work provides a career ladder for movement to these higher-grade positions requiring specialized experience.

The following positions are excluded from the GS-1411 Series even though they include some duties typically performed by a library aid/technician:

FUNCTIONS PERFORMED BY PROFESSIONAL LIBRARIANS

Duties of the "professional librarian" are those whose adequate performance involves the ability to exercise judgment based on an understanding of the principles of library service—collection and organization of publications and information, users, and the means by which they are brought into effective relationship. This understanding implies a wide knowledge of library science philosophy and methodology, specific library techniques and procedures, and literature resources together with a broad educational background and, in some cases, a subject specialty and language proficiency.

For example, in book selection, the librarian will be aware of the overall needs of the community he serves, whether that community be one of scholars, specialists or the general public. He will find out which books or special materials will best help his patrons by his ability to use all the bibliographic tools available. In reference and research work, the librarian's training will have instilled in him a concept of the methodological approach necessary. He will know the obvious "first" sources, and then go on to the most complex until the problem is solved, the report is written, the information is found, or the book is cataloged.

This is not to say that specific techniques classified as professional cannot be taught to individuals who are not, by training, professional librarians. What is implied is that the adequate performance of the full range of professional duties requires professional judgment and a thorough understanding of the principles and objectives of each duty and its function in relation to the overall purpose of libraries.

Typical functions performed by professional librarians include the following tasks: (This list is not arranged to show what duties are performed in a particular type of library or in a particular department of a library system or in any one position. Duties performed depend upon the purpose for which the library was established, and the method of organizing and delegating responsibility for specific tasks to accomplish the mission of the library.)

1. Administration

Administrative duties may be performed on different levels. Some may involve overall administrative responsibility for a library, a group of libraries, or a library system. Others, such as responsibility for budgeting, for plant and equipment, and for management studies, may concern specific activities. Typical duties include:

A. Continuous integration of the library program with missions and programs of the parent organization.

B. Program planning and directing, including developing the library's collection; establishing internal library policies and procedures; and establishing policies and programs for assistance to readers; program evaluation and development.

FUNCTIONS PERFORMED BY TECHNICAL INFORMATION SPECIALISTS

Technical information specialists perform any of the various elements of work described briefly on pages 4 to 7 of the Guide for the Classification of Positions Providing Professional-Level Library and Information Services. Performance of such duties requires a broad (but not necessarily deep) knowledge of a variety of subject fields sufficient to understand the significance and relationships of the concepts and ideas contained in the literature; and a practical knowledge of the specific documentation or library methods and techniques used in processing the literature. Some technical information specialists must understand and apply the special techniques, methods, and devices of a semi- or fully-automated information system; some must have foreign lanaguage proficiency to read documents generated in languages other than English.

The most common functions performed by the technical information specialist include:

1. Analyzing source materials, indexing, extracting and abstracting

This involves the detailed examination of source materials to understand the intellectual content, to determine the essential features of the information, and to select points of view (or analytics) that are considered to be of sufficient probable importance to warrant the effort of rendering them searchable in the system.

Subject analysis of technical reports or other research documents is difficult because it involves recording characteristics for retrieval at a later date when the implications inherent in future requests are unknown at the time of recording and when the terminology has not yet crystallized into any standardized form. Superimposed on this is the problem of finding suitable words which characterize these shifting concepts. The words of the document are not necessarily those which are in current use, nor will they always be the same words used to characterize an information request put to the file at a later date.

Faced with several thousands of words normally found in a typical document, the specialist selects those words and ideas which seem significant, based upon his subjective knowledge of the subject matter. Such a selection is conditioned by his academic training, observance of the frequency of occurrence of certain words, knowledge of the pattern of use of the literature, acquaintance with the terminology used in the phrasing of questions to be put to the file, and comparative knowledge and ignorance of the association of ideas or relationships between the concepts recorded in the document.

The amount of detail, or "depth" of analysis, and the form in which it is provided is dependent upon the purposes that the analysis is expected to serve. Three types of purposes may be

Positions which are isolated or dead-end assignments within the library. For example, where the library affords little opportunity for advancement or for a career in the library field, the organization in which the library is located may feel it is wise to fill nonprofessional positions in the library through the career development pattern established for clerks, typists, dictating machine transcribers, stenographers, etc. Such positions typically include duties which are appropriately classified by other standards as file clerks, dictating machine transcribers, etc.

B. DISTINGUISHING BETWEEN LIBRARY TECHNICIANS AND PROFESSIONAL LIBRARIANS

In determining whether positions are classified to the Library Technician Series, GS-1411, or to the Librarian Series, GS-1410, careful consideration should be given (a) to the duties and responsibilities of the position, including the supervision received; (b) to the knowledge and abilities required to perform the work; and (c) to the recruitment sources, the career ladder, and needs of management. For example:

a. Library Technicians typically are proficient in one or more functional areas or in certain limited phases of library service work in the particular organization in which they are employed. Normally, they do not possess the wider knowledges required to work in other functional areas or other types of libraries.	Librarians, even though assigned to one functional area, are required to apply a knowledge and understanding of each duty and its function in relation to the overall purposes of the library. They must possess a knowledge of library principles, theories, and techniques, and of literature resources, sufficient to permit freer movement to other functional areas, or to other library organizations.
b. Library Technicians generally follow established methods and procedures which have been developed by librarians. Occasionally, they may develop individualized work plans or procedures but these are typically in limited or nonprofessional areas (such as mechanical preparation, physical upkeep, or circulation of materials).	Librarians are responsible for planning and developing the library system, functions, or services; and for the formulation, development, and establishment of operating methods or procedures, requiring a broad understanding of the interrelationship of the various library activities.

C. Public relations and educational activities, such as (1) interpreting programs to key officials, library users, and special groups; and (2) promoting services of the library by planning publicity programs and participating in group activities.

D. Management studies, such as (1) reviewing programs and operations to identify and analyze problem areas; (2) determining and instituting work measurement and work simplification studies; (3) determining records, statistics and forms required; and (4) planning, designing, developing, and installing mechanized systems for library operations or procedures.

E. Budget and finance, which involve (1) planning and justifying library budget or funding; and (2) executing and controlling library expenditures.

F. Personnel, which involves (1) interpreting and applying personnel policies of parent organization; (2) recruiting and assigning new employees; (3) supervising work and establishing time schedules; (4) planning and implementing staff development programs.

G. Library plant and equipment, such as (1) planning and justifying library quarters; (2) determining needed supplies and equipment; (3) planning for efficient use of shelves and files; and (4) determining policies concerning physical upkeep of collections.

H. Library extension service, such as (1) recommending type, location, organization, and management of extension services, or libraries at field stations; (2) planning and installing field or extension service libraries; (3) determining nature of field service.

I. Responsibility for the adequacy and soundness of library research.

II. Selection of material

The selection of books, periodicals, and other library materials requires constant and extensive reading, a broad background of knowledge of the literature, ideas, terminology and leading figures in many fields, familiarity with bibliographical aids of all kinds, and a high-degree of judgment. Final selection is almost always based on reading and appraisal, or suggestions and specialized knowledge contributed by a number of persons, including executives, research workers and technicians who share the responsibility with librarians. The librarian's professional judgment is applied to achieve a coordinated policy in which competing needs and claims are balanced against the resources available.

Selection and weeding of collections are complementary and

identified: (1) to provide a substitute for the original source material; (2) to permit determination as to whether it is useful to obtain and read the source material; and (3) to permit identification of source materials that are probably of interest in connection with one or another quest for information.

Analysis may result in indexing, abstracting, or extracting of the source documents.

a. Indexing.—The selection of words or ideas from a graphic record on the basis of well-defined rules, in order to facilitate the identification or selection of desired records after they have been stored.

The difficulty in indexing is compounded by the breakdown of traditional subject divisions, which occasion a rearrangement of concepts; the use of the same terminology with different meanings in various fields of knowledge; changes in terminology and the eventual association of ideas not apparent at the time of indexing; continual shifts in subject interest and, conversely, the underindexing of topics later proved to be of interest. Changes in the clientele using the file are likely to negate the "point of view" with which the file has been indexed. It is therefore evident that the indexer is to a certain extent predicting future information requests (in terms of subject areas, terminology, and association of ideas) to be put to the file at a later date, occasioned by a state of technology and subject needs yet unknown.

There are two recognized levels of indexing:

(1) "Word" level.—This consists of selecting words from source documents which appear to be of importance. Such indexing is usually done by a nontechnical person or by machine. It implies that the indexer either has insufficient understanding of the subject matter of the source material or insufficient time to conduct a thorough analysis of the materials so that the identification of "catch" or key words from within the material serves as a basis for identifying these features. POSITIONS CONCERNED WITH INDEXING AT THE "WORD" LEVEL ARE NOT CLASSIFIABLE TO THIS SERIES when utilization of professional scientific subject knowledges are not required. Under some circumstances, such as intelligence work, indexing at the word level may require subject knowledge.

(2) "Concept" level.—Here, an attempt is made to look behind the words used by the author of the source material in an attempt to discern "concepts" which underlie the discussion. It should be obvious that a concept is not a rigid, inflexible criterion. The extent of penetration into the underlying meaning of a source material or a portion thereof cannot exceed the precision or depth of understand-

c. *Library Technicians* typically learn library techniques and operations on the job, or in specific training courses related to the work being done.

d. *Library Technicians* work either directly or indirectly under supervision of a Librarian; in some situations through a Supervisory Library Technician.

Librarians gain a knowledge of library science, and of literature resources, through a broad cultural or academic background (e.g., equivalent to a bachelor's degree), plus academic training in the theories, principles, and techniques of librarianship (i.e., equivalent to a master's degree).

continuing processes. The needs of readers are constantly changing and selection policies and practices must be modified to keep pace with them. Typical duties include:

A. Formulation of policy, including (1) identifying the needs of readers; (2) formulating policies for selection; (3) deciding policy on interlibrary cooperation; and (4) allocating book funds between departments, subjects, collections.

B. Selection of current material, including (1) keeping in touch with publishing activities; (2) tentative selection of material from book reviews, catalogs, lists, etc; (3) preparing lists of material needed in specific subjects; (4) deciding which material will be requested on approval; (5) deciding on number of duplicate copies and on editions; (6) deciding on acceptability of gifts; (7) making final decisions on selection of material.

C. Selection of serials, and deciding retention policies for serials.

D. Control of collections, including (1) preparing basic collection lists; (2) selection of books for extension, mobile, or temporary collections from the books in the library's general collection; and (3) examining and deciding on material to be discarded or replaced.

III. *Acquisition of material*

In the acquisition of library material, information and suggestions about sources of supply contributed by all those who aid in selection are gatherered together and coordinated so that purchasing, receiving, and recording may be carried out economically and efficiently. Skill in the use of bibliographical aids of all kinds, and familiarity with the market (for new and for secondhand material) and the resources of dealers are important factors in acquisition. Acquisition of rare books and materials requires highly specialized knowledge, as does the acquisition of material published in other countries. A problem, particularly in special libraries, is the prompt acquisition of fugitive and ephemeral material, much of which is not obtainable through normal trade channels. The organization and operation of exchange of material with other libraries and institutions raises special problems for those libraries which have publications of their own available for exchange. Administration of a share of the library's funds is a major responsibility and the librarian must constantly be alert to opportunities for advantageous purchases Tynical duties include:

A. Acquistion responsibilities, such as (1) controlling the acquisition budget; (2) negotiating with publishers, dealers and salesmen; (3) deciding on methods of acquisition.

ing of the subject matter attainable by the indexer, who in turn is attempting to identify those concepts which will be meaningful to an ultimate user of the service. To provide the ruquired input quality under the concept level, the indexers must (a) thorougly familiarize themselves with the document and its contents, (b) analyze carefully the information to be indexed, (c) identify the concepts with which the information is concerned, (d) evaluate the significance or relevance of the information to the needs of the users, and then (e) describe the concepts adequately and fully to insure that the system will be capable of providing rapid, efficient, economical retrieval. These intellectual activities—namely, analysis, identification, evaluation, and description—comprise the operation of indexing at the concept level.

When concepts are to be identified, it is possible to have pre-established concepts which have been determined to be of probable interest to users of the information service, and to use only those which are so identified. This, of course, involves the pre-establishment of "subject authority" lists, with the scope of meaning or of subject matter clearly identified, so that only those features which match the concepts may be used.

In concept coordination systems, the indexer determines the nature of the information in the source document and describes that information by terms which represent UNIT CONCEPTS. As many terms are used to describe the information as can be justified in terms of the scope and quality of the information contained in the document and in terms of the needs of the users. These terms serve as "locators" of documents when information is needed. Documents are retrieved by correlating, rerelating, reassociating, recombining, or bringing into coordination those terms which describe the information being sought.

Analysis of technical reports or other research materials is also influenced by secrecy requirements. The full source material may be "classified", requiring the specialist to analyze it at a sufficient depth (in non-classifed terminology) to provide some insight into the subject matter or essential features of the material and still not reveal the particulars of an activity or an experiment which are considered secret.

b. *Abstracting*. -The preparation of an abstract involves concentrating in brief form the essential qualities of a publication, or of several publications. It is primarily a summary of a document or article accompanied by an adequate bibliographical description to enable the publication or article to be traced. The *simple* abstract is one that merely describes and does not involve subject

B. Ordering procedures, such as (1) designing the ordering system and supervising its operation; (2) establishing serial checking records and supervising their operation; (3) appraising highly specialized and rare materials.

C. Deciding method of disposal for unwanted material.

IV. Cataloging, classification, and indexing

Cataloging and classification are the main processes by means of which library materials are systematized and made available to users. In some libraries, technical reports, local publications, journals, or other documents are analyzed and indexed to facilitate use by the library's clientele.

The professional duties connected with these activities in some situations require highly specialized technical knowledges. The librarian's level of understanding of the subject matter is one of the most important factors which influence the depth of subject analysis feasible for source materials. Typical duties include:

A. Establishing classification and cataloging policies, expanding and developing classification schemes, expanding and developing lists of subject heading, establishing indexing policies, developing and operating a terminology control scheme, such as a thesaurus with lists of descriptors for use in manual or mechanized systems.

B. Classifying books by assigning them to their proper places in the system of classification used and thus determining their positions on the shelves in relation to other books. Reclassifying books because of new developments or changes in organization.

C. Descriptive cataloging, the process of examining each publication in order (1) to identify its unique features so as to distinguish it from other items; (2) to describe it bibliographically, including a description of its format and bibliographic relations to other items; (3) to record these data in a form of entry which can be integrated with the entries for other items in a collection. Cataloging rules, reference works, and other sources are consulted in determining the author or originating body, in establishing the proper form of the entry, and in determining necessary cross references.

D. Assigning subject headings, involving (1) careful examination of the publication being cataloged to determine the specific subjects with which it deals; and (2) selecting, usually through the use of standard subject heading lists, the words or groups of words which best indicate the subjects under which the material should be listed in the catalog.

analysis; an analytical abstract involves subject analysis; a critical abstract not only involves subject analysis but also relates to the relative value of the material.

The abstract generally takes one of two forms: (1) descriptive or indicative, in which the function of the abstract is to advise the reader that an article exists and to furnish substantial information for him to decide whether or not he wishes to review the original; or (2) informative, in which a brief but complete discussion of the article is included, noting all high points, and which ideally obviates the necessity of referring to the original.

c. Extracting—Selecting for quotation portions of source materials. The specialist performing this operation is charged with the responsibilitiy of perusing the source document and then, after formulating an opinion as to the value and pertinence of the document, of selecting sentences, phrases, words and/or paragraphs which, in his estimation, most closely embody the theme of the document.

In some considerations, the abstract and extract are similar. It must be remembered, however, that the abstract is often a summation of information in the words of the abstracter, whereas the extract is the summation of thoughts in the original words of the author.

2. Developing terminology controls

This concerns the development of thesauri, lists of descriptors, subject heading lists, etc. It is the unit operation which attempts to provide a semantic bridge between the language used by an indexer and the language employed by an individual who wishes to direct a question to an information facility. Terminology control also endeavors to keep words used in any field within known limits.

Developing and operating a terminology control policy requires scrutiny of many variables, all of which influence the final system. Some of these variables are: type of documents handled; subject field; clientele interest; and the needs of other cooperating document and information facilities (either of the same subject orientation or of an interdisciplinary nature).

The terminology control function involves:

a. Analyzing the meaning of the "essential features" of source materials. This meaning may be discerned through definitions found in dictionaries, either general or specialized, or may be derived from the special context of these terms in particular source materials or in a collection of source materials.

b. Selecting those meanings which are considered to be probably useful for the purposes of the information system, and recording these in appropriate fashion.

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The cataloger must understand the requirements and special interests of the library's users so that the catalog may be suited to their needs. In some libraries, the cataloger must provide for detailed subject breakdowns and must employ terminology which reflects current thinking in the fields.

E. Indexing special collections, local publications, archives, manuscripts, and other special material to facilitate use by the library's clientele.
NOTE: In a library, indexing and assigning of subject headings are similar in that both are concerned with identifying the contents of the document. They differ primarily in that an index is a detailed key to the contents of a special collection of material, whereas an alphabetical subject catalog is normally a broad guide to all books and other items in the library. (See also the discussion of analyzing and indexing of documents on page 10 of the standard for the Technical Information Services Series, GS-1412.)

F. Performing duties concerned with the production of catalogs, lists, bibliographies, etc., when the competence of a professional librarian is required. For example: (1) deciding the physical form of catalogs; bibliographies, etc.; (2) establishing and revising filing rules or special codes; (3) establishing and supervising cataloging records; (4) establishing and maintaining union catalogs; (5) supervising contributions, or checking and editing entries, before reproduction of union catalogs; (6) participating in cooperative cataloging.

V. Assistance to readers

Includes all the services which help in the effective use of the library for reading, in contrast with activities connected with answering specific questions or finding particular information. The function of fitting books to the personal needs of the individual reader is the purpose for which many of the duties are performed. Sometimes a library will work through organizational groups already formed with specific interests which may be promoted through books, and sometimes through library-initiated discussion groups, film forums or lecture courses. Typical duties include:

A. Explaining the general arrangement and resources of the library; assisting readers to locate and select books; keeping in touch with the interests of readers; providing planned reading guidance.

B. Conducting group activities; cooperating with groups; giving talks on books and reading; planning and conducting activities with children and young adults; arranging and conducting classes in the library; coordinating the library with an educational program.

C. Informing readers about books relating to their special interest; furnishing information about books, authors, publishers, book sellers; compiling and distributing reading lists; maintaining information bulletin boards; planning books displays.

Most tasks performed in offering reading guidance to young people are the same as those for adults. However, when working with children or young adults, a few specialized tasks are performed. In carrying out these special duties, the library recognizes its responsibility as an educational agency to promote a wider and more understanding use of books and libraries; to develop desirable reading habits and tastes; and to teach the use of libraries and books as tools of learning. The performance of such special services presupposes on the part of the librarian an interest in and an extensive knowledge of literature for children and young adults, an understanding of child psychology, and a knowledge of educational trends and interests.

VI. Reference work

Reference work comprises the functions involved in making the materials in a library available to users as sources of information, and, if these materials prove inadequate, tracing the required information elsewhere. The location of information, both inside and outside the library, requires a wide knowledge of sources of information, and familiarity with reference techniques. The reference duties in all types of libraries are essentially similar though there are wide variations in the kinds of aid given, depending upon the nature of the clientele served and the policies and resources of the library.

Building up the reference collection is an important duty, but this has been discussed under "Section of Material". Other typical duties include:

A. Establishing reference policies, such as determining the organization of reference service, the groups to be served, and the extent and kind of service to be given to individuals.

B. Answering reference questions which have a wide range in difficulty varying from those which can be answered by brief consultation of general or special reference tools to elusive and involved questions which require extended searching in many sources both within and without the library. (The latter may overlap the function of "literature searching" described below.) Reference service may include locating materials and suggesting resources in other libraries. This involves the use of union catalogs, union lists of various kinds, the services of bibliographical centers, the use of semi-automated or automated retrieval systems, and arranging for photographic reproduction of materials.

C. Instructing library clientele in reference methods and information sources, in the use of catalogs and indexes, and in the techniques of searching; organizing and maintaining information files; verifying bibliographical data for interlibrary loans; contributing to bibliographical projects; planning exhibits of special materials.

D. Providing research assistance. General libraries with special collections may provide research assistance on occasion, and academic libraries may also offer similar assistance to faculty members or research students. Special libraries in organizations where research is carried out will more frequently become involved in research in subjects where literature or documents play an important part. Such services are more akin to literature searching discussed in the following paragraphs (item VII).

VII. Literature searching

Includes the systematic, comprehensive, or exhaustive search for information bearing on a specific problem or subject. It is performed as a special service for subject specialists and is considered an intermediate stage between reference work and research. Results of the search, regardless of retrieval systems, are presented in the form of bibliographic references, abstracts, extracts, opinions, documents, or direct answers.

Retrospective searches, current awareness programs, and automatic dissemination programs are examples of literature searching services which may be provided.

(NOTE: Literature searching as described in more detail on page 14 of the standard for the Technical Information Services Series, GS-1412, is also performed by librarians. The functions performed are similar, but the knowledges, methods, and techniques used may differ.)

VIII. Compiling bibliographies

The preparation of bibliographies may be performed in connection with reference or literature searching activities in the library. In some situations, it may be a separate work program. Some bibliographies are compiled at the request of individuals or organizations, while others are initiated by the library itself. Most libraries maintain continuing bibliographies on subjects of local and special interest.

Bibliographies will vary from short lists of books, periodical articles, and pamphlets for the general reader, to long lists of scholarly or technical materials for research workers, technicians, officials and other specialists. Many bibliographies will include annotations describing and evaluating the materials listed.

3. Literature searching

This includes the systematic, comprehensive, or exhaustive search for information bearing on a specific problem, or subject performed as a special service for specialists engaged in research or other scientific, technical, or specialized work.

There are two situations which occur in searching for information. The first is looking for something that is known to exist. This is a search of recall, retrieval of documents previously examined. The second is looking for unknown information or the closest thing to it that does exist. This is a search of discovery in which the existence of the document is unknown. As one author writes. "These are the most interesting and probably the most important for progress in research. Such searches are planned adventures into the unknown. . ."

Successful accomplishment of a literature search requires skill on the part of the client in communicating his information needs; it also depends upon the degree to which the technical information specialists have their own independent knowledge of the situation giving rise to the user's question. This knowledge of the subject is necessary to provide a "match" between the user's formulation of his question and the interpretations of that inquiry which the technical information specialists must make to plan their search strategies.

The following are examples of literature searching services which may be provided:

a. Retrospective searches—include those information needs of questions which are of one-time interest and for which response are derived from searching previously processed source materials.

IX. Researching with information

This includes the solving of research problems without recourse to experimentation by gathering, analyzing, and interrelating information from a combination of sources. The initial phases of this process may be very similar to the work involved in literature searching.

X. Other

This includes the professional responsibility for other library functions which are primarily nonprofessional in character, such as:

A. Establishing systems and planning procedures for registration of borrowers and circulation work is usually done by professional librarians. Actual registration and circulation work, however, is nonprofessional in character. In larger nonprofessional staff, professional supervision may be provided to see that the staff understands and follows administrative policies.

B. The physical processes involved in preparing material for use are nonprofessional in character, but determining methods and routines are professional, since the way in which library materials are treated physically has a direct relation to the effective functioning of the library. A nonprofessional worker, however, may specialize in this phase of library work and supervise all these operations.

C. Keeping books and other library materials in good physical condition is an activity common to all libraries, although problems will vary in different kinds of libraries. In the case of rare and expensive items, technical processes are involved. Usually, it is a duty of a professional worker to understand and evaluate them, even though the actual work is done by nonprofessional staff members. Determining policies concerned with physical upkeep, making decisions on methods to be used, and the general supervision of physical upkeep processes are generally professional assignments.

D. The usefulness of any library collection depends upon the ease and speed with which books and other library materials can be located when needed. Most duties concerned with the care of shelves, files and equipment are nonprofessional in character. The planning of shelf arrangements, planning and supervising an inventory of books and other library materials, and planning shelving procedures are tasks generally performed on a professional level.

b. Current-awareness programs—include those information needs or questions which are of continuing short- or long-term interest and for which responses are derived from searching currently processed source materials. This type of service requires the determination, in advance, of the information interests of a given individual, department, group, etc. A profile is then created from this information, including the subject area, depth or technicality, and perhaps volume of information desired. Periodically information is reviewed and new articles, abstracts, or citations which match the profile are disseminated.

c. Automatic dissemination programs—include those information needs not expressed specifically by the clientele. With this type of service, the technical information specialist identifies information of probable importance. An endeavor is made to provide materials on a selective basis to expose users to information falling within their range of interest. One approach, for example, is a weekly accession list (or similar document) which is mass-disseminated to everyone in a given concern, subject area, etc. In another approach, the reviewer of the information disseminates what he believes are pertinent articles to specialized individuals, based on the reviewer's intuitive feelings and the past literature that has been requested.

Results of the search, regardless of retrieval systems, are presented in many forms. These may include: (1) direct "answers" to a question; (2) provision of data relating to a question or problem; (3) provision of documents, abstracts, or extracts; or (4) the compilation of a bibliography. A bibliography may be a listing of any or part of a series of papers, reports or data issued over a given period of time; a listing of books, maps, etc; a listing of references covering a period of time in a certain subject area and compiled from various publications and indexes. Although the bibliography does not, of itself, provide the source of information which the user is seeking, it does provide a reference point from which to conduct a more precise search. (A search which results in a comprehensive state-of-the-art report, as a general rule, would be performed by a subject specialist.)

TITLES

Approved nonsupervisory titles for positions covered by this standard are as follows:

LIBRARY AID, GS-1 through GS-3

LIBRARY TECHNICIAN, GS-4 and above.

Supervisory positions are included in the coverage of this series. When supervisory duties and responsibilities are of such significance in the position as to require supervisory qualifications, the position should be designated as supervisory by addition of the prefix "Supervisory" to the title, i. e.—

SUPERVISORY LIBRARY TECHNICAL, GS-4 and above.

This standard does not provide criteria for classifying positions in which supervisory duties are grade-controlling. See Part I of the Supervisory Grade-Evaluation Guide to determine the grade-level classification of supervisory positions.

OFFICIAL TITLES AND SPECIALIZATIONS

A. For Librarians who are subject-matter generalists

Librarians who are subject-matter generalists render services related to general or specialized collections. They must be equipped with a breadth of knowledge in many subject fields, coupled with an understanding of the basic principles of librarianship. Regardless of the type of collection serviced, the following titles are authorized:

Librarian should be used for all nonsupervisory professional librarian positions. It reflects a knowledge and understanding of all aspects of professional library service (including selection, acquisition, cataloging and classification of materials, bibliographic and readers' advisory services, reference and literature searching service, and library management).

An appropriate modifier or specialization should be added only when authorized in the succeeding paragraphs and item "B" below.

Supervisory Librarian should be used when the position includes responsibility for supervising a number of librarian or other professional positions and the supervisory duties and responsibilities constitute a regular part of the position, and are of such significance as to require supervisory qualifications. (Note: See "Evaluating Supervisory Positions" on page 12 of the Guide for Classification of Positions Providing Professional-Level Library and Information Services.

Administrative Librarian should be used for those positions which include administrative, staff and program responsibilities. Librarians in these positions provide guidance for improving library operations and services, carry on library planning and development activities, program evaluation, organization of group services, coordination of library programs, etc. This title should also be used for librarians who administer a large installation library and branch library program and whose functions are in the area of program management and development rather than supervision.

Library Director includes positions the duties of which are to provide the leadership, technical guidance, and direction to a library program, a group of libraries, or a library system. Supervision of other employees is inherent in these positions. Positions warrant this title only when they have managerial responsibilities great enough to exclude them from coverage by the Supervisory Grade-Evaluation Guide, Part II. Includes positions such as the head of a very large (national) library, or an agency or department's library, library system or group of libraries.

OFFICIAL TITLES AND SPECIALIZATIONS

A. Authorized titles

Technical Information Specialist.—This title should be used for all nonsupervisory positions concerned with direction, development, administration, coordination, or performance of information services. An appropriate specialization should be added as authorized in paragraph B.

Supervisory Technical Information Specialist.—The supervisory title should be used when the position includes responsibility for supervising a number of professional or technical positions, and the supervisory duties and responsibilities constitute a regular part of the position and are of such significance as to require supervisory qualifications. Such positions are distinguished from Technical Information Officer positions in that they do not involve overall program responsibility. (Note: The Supervisory Grade-Evaluation Guide, Part II, should be applied in determining (a) which positions are supervisory in nature, and (b) the grade level of the supervisory positions.)

Technical Information Officer.—This title should be used for managerial positions concerned with administration or direction of the overall technical information services program.

B. For Librarians who require specialized knowledges

In highly specialized libraries, the work often lies chiefly in one subject-matter field, or closely related subject areas. To serve subject specialists who are the principal users of these libraries, some librarians require a substantial knowledge of a specialized subject or field of endeavor. Such subject-matter knowledge typically covers a broad field, rather than a deep subject knowledge and competence related to a specific discipline or field of interest, or a full knowledge of the state of the art. Because materials in libraries are often in foreign languages, some librarians must have a proficient knowledge of one or more foreign languages.

The following specializations are to be used (a) when the duties of the position require a knowledge of the basic principles, theories, practices, techniques, terminology and expressions of a discipline or specialized subject-matter area; or a comprehensive knowledge of one or more foreign languages sufficient to read library material fluently; and (b) when the need for such specialized subject-matter or language knowledges are a significant factor in the recruitment and assignment of personnel:

Subject-Matter Specializations

Biological Sciences
Medical Sciences
Phyical Sciences
Social Sciences
Engineering
Music
Business and Industry
Education
Fine Arts
Humanities
Law

Foreign Language Specializations

Arabic
Germanic
Oriental
Romance
Slavic

Titles for individual positions should be constructed to reflect the specialized knowledges required to perform the work assigned. For example: Librarian (Social Sciences); Supervisory Librarian (Physical Sciences-Slavic Languages); Librarian (Romance Languages); Library Director (Law). When dual subject-matter specializations are required, these may be reflected in the title, e.g. Librarian (Fine Arts and Humanities).

GRADE-LEVEL EVALUATION

The "Guide for the Classification of Positions Providing Professional-Level Library and Information Services" is to be used in determining the grade level of librarian positions.

B. Authorized specializations

The following authorized specializations are to be used as parenthetical additions to the official title, e.g., Technical Information Specialist (Medical Sciences), or Technical Information Specialist (Physical Sciences-Slavic Languages).

Subject Specializations

Biological Sciences
Medical Sciences
Physical Sciences
Social Sciences
Engineering
Business and Industry
Education
Fine Arts
Humanities
Law
Music

Foreign Language Specializations

Arabic
Germanic
Oriental
Romance
Slavic

GRADE-LEVEL EVALUATION

The Guide for the Classification of Positions Providing Professional-Level Library and Information Services is to be used in evaluating the grade level of positions in this series.

This series includes all positions involving work that *primarily* requires a full professional knowledge of the theories, objectives, principles, and techniques of librarianship. An inherent requirement of these positions is a knowledge of literature resources. Some positions also require a substantial knowledge of the subject matter involved and/or a substantial knowledge of foreign languages. Such work is concerned with the collection, organization, preservation, and retrieval of recorded knowledge in printed, written, audio-visual, film, wax, near-print methods, magnetic tape, or other media. Typical library functions include the selection, acquisition, cataloging and classification of materials, bibliographic and readers' advisory services, reference and literature searching services, library management and systems planning, or the development and strengthening of library services.

* * *

The librarian occupation in Government involves selecting, acquiring, organizing and disseminating knowledge and information suited to the needs of the agency served and to the broader national and international communities to which the library has responsibility. This includes an understanding of the media through which knowledge is recorded and transmitted, and an understanding of the clientele, with ability to analyze their requirements, to anticipate future needs, and to provide interpretation and guidance in the use of pertinent information materials.

EXCLUSIONS

Excluded from this series are:

1. Positions involving library routines or techniques which may be assigned to individuals who are trained or experienced in a professional, scientific, technical, or other specialized discipline or field of interest, but who *do not meet the qualifications* for a professional librarian.

a. Positions will be classified to the Technical Information Services Series, GS-1412 when the work performed requires (1) a practical knowledge of documentation or library techniques (i.e., typically learned on the job) *and* (2) a broad knowledge of one or more professional, scientific, or technical disciplines or fields of interest sufficient to understand the significance and relationships of the concepts and ideas contained in the literature.

b. Positions will be classified to the appropriate subject-matter series when the work primarily requires professional knowledge in depth related to a specific discipline or field of interest, or a full knowledge of the state of the art, in analyzing, interpreting, evaluating or synthesizing the literature.

c. Positions involving professional services in a program of education and training will be classified to the Education and Vocational Training Series, GS-1710, when the work requires (1) *primarily* the application of a knowledge of the principles, practices, and techniques of education and/or accreditation as a teacher by a recognized licensing body; *and* (2) some knowledge of library science (e.g., positions of teacher-librarian or school librarian filled by recruitment of qualified teachers). Positions of school librarian are classified to the Librarian Series, GS-1410 when the work *primarily* requires a *full professional* knowledge of librarianship.

2. Positions involving library routines or techniques (*a*) when adequate training cannot be acquired by general office experience, and (*b*) when the duties performed do *not* require the professional competence of a trained librarian, or the knowledge of one or more professional, scientific, or technical disciplines. See the Library Technician Series, GS-1411.

3. Positions concerned with fundamental areas of scientific investigation leading to better information systems when the work is not *primarily* based upon a professional knowledge of librarianship.

Incumbents of such positions are being referred to by some individuals, groups, or organizations as "information scientists".

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The scientific investigations which they conduct are derived from or related to specialized fields such as mathematics, logic, linguistics, psychology, computer technology, operations research, the graphic arts, communications, library science, management, etc. Positions concerned with such scientific investigations will be classified to the appropriate discipline or subject-matter series with which they are *primarily* identified. That is, if the research is primarily based upon a professional knowledge of library science, the position will be classified to the Librarian Series, GS-1410. But if, for example, the research is primarily based upon a knowledge of mathematics, psychology, or operations research, the positions will be classified respectively to the Mathematics Series, GS-1520, the Psychology Series, GS-180, or the Operations Research Series, GS-015.

4. Positions *primarily* requiring a specialized knowledge of computer technology, or other mechanical, electrical, or electronic devices for the operation and maintenance of a library. See the appropriate series in the GS-300 Group.

5. Positions involving professional archival work including the assembling, appraising for historical significance, cataloging, classifying, or editing and publishing of historic documents, public records, and exhibits. See the Archivist Series, GS-1420.

6. Positions involving the maintenance of catalogs, furnishing information concerning prices, solicitation of bids and placing of contracts for requested publications or periodicals which *primarily* require a knowledge of purchase regulations, procedures, and basic laws. See the appropriate series relating to the purchase of items of supply.

7. Positions primarily requiring a knowledge of public information techniques, ability to utilize communications media, or writing and editing skills. See the Public Information Series, GS-1081; the Writing and Editing Series, GS-1082; and the Technical Writing and Editing Series, GS-1083.

8. Positions *primarily* concerned with making written translations from or into foreign languages where the ultimate objective and main purpose of the job is the production of accurate translations of written material prepared by others. See the Translator Series, GS-1045.

9. Positions involving the application of accepted theories and techniques of medical record library science in the development, maintenance, analysis, and use of diagnostic and therapeutic medical records. See the Medical Record Librarian Series, GS-669.

10. Positions involving clerical or other subordinate work which requires a knowledge and understanding of the administrative, clerical or specialized procedures and operations, routines or techniques peculiar to the collection, organization, storage, searching or retrieval of information media, files or other records, (e.g., file clerks, clerks concerned with distribution of publications, or clerical "tape librarians"). See the appropriate clerical or subprofessional series.

11. Positions responsible for management of an information center when the *primary knowledge requirements are not those of a professional librarian.* Such positions will be classified based upon the primary knowledge requirements, e.g., (*a*) to the appropriate subject-matter series, such as the General Physical Science Series, GS-1301; (*b*) to a broader information series, such as the General Arts and Information Series, GS-1001; (*c*) to the Technical Information Services Series, GS-1412; or (*d*) to an appropriate management series.

OCCUPATIONAL INFORMATION

Positions of librarian are located in a variety of different types of Government libraries or other information facilities. These include, e.g.:

(1) the Library of Congress, the research library which functions as the library for the legislative branch as well as the national library of the United States. The library includes many specialized information services (e.g., the National Science Referral Center);

(2) the National Agricultural Library;

(3) the National Library of Medicine;

(4) libraries which support the research or operational programs of laboratories, bureaus, agencies, or departments;

(5) libraries and field station libraries at defense installations

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or other field locations which provide educational, informational, cultural, technical, and recreational services;

(6) libraries which provide library service as an integral phase of a medical program and domiciliary program;

(7) the Public Library System of the District of Columbia which combines educational, informational, cultural, and recreational programs.

Functions performed in the Federal Government libraries vary greatly depending upon the mission of the parent organization; the constituency; and the objectives to be accomplished. Many of the services performed, however, are similar in nature.

Federal libraries may operate as (*A*) general libraries, (*B*) research libraries, (*C*) special (or technical) libraries, or (*D*) academic libraries. These different categories of libraries are described briefly below. However, many of the libraries have characteristics pertaining to more than one category. For example, a special library may also include a research collection; a general library serving a military installation may also have a specialized collection or a research collection in one or more subject areas, and may provide services similar to those of a special or academic library.

(A) *The General (Public) Library*

The general (public) library provides a source of educational, cultural, or recreational information to all ages and groups in the general population or clientele served. From the spectrum of recorded knowledge, the general library collects the printed and audio-visual materials needed to enrich the individual and group life of its constituency. The materials cover a variety of forms: books, periodicals, pamphlets, newspapers, pictures, slides and films, music scores, maps, recordings, and the various forms of micro-reproduction. The collection may include materials in foreign languages.

The general library organizes and makes available these resources so that they are convenient and easy to use. It provides a program of reader's advisory, reference and information service to the public. It guides people of all characteristics and ages in interpretation and use of the material; it enables as many as possible to apply the record of what is known to their daily lives; and it assists them in their quest for knowledge and information. The general library's collection is used to facilitate informal self-education; to enrich and further develop subjects being studied in a formal educational program; to meet informational needs arising out of everyday activities; to support the educational, civic and cultural activities of groups and organizations; and to encourage wholesome recreation and constructive use of leisure time.

General libraries in the military service, hospitals, or other special service activities may also provide materials and services to support the mission of the organization and all tenant activities. When so designated, they also support resident courses offered by colleges and universities, and meet accreditation standards of these institutions.

(B) *The Research Library*

A research library is an aggregation of all sorts of book and periodical and manuscript materials, assembled together not for sustained or for pleasurable reading—indeed, in a sense, not for reading at all—but for "research," that is, for the purpose of scholarly investigation. Research libraries are, primarily, the stored-up knowledge of the race, warehouses of fact and surmise, in all their forms and infinitely remote ramifications, the raw materials from which our humanists and our scientists are going to develop later new facts and fresh surmises. Research materials are in a sense the building blocks of civilization.

Principal materials in the research library are commonly monographs and serials (dating back to first issue where possible). Some large research libraries also maintain collections of theses and special works not formally published. Extensive collections include similar materials from other lands and other cultures and therefore in other languages. The research library provides current and retrospective information services covering a relatively broad subject area. A research library preserves (or maintains for long periods) its collection, thereby providing continuing physical access to these documents.

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(C) *The Special (or Technical Reference) Library*

The special library is a primary information source in fields pertinent to the purposes and work of the organization it serves. The special library acquires materials and information for the organization's current and future needs, and organizes the materials and information in the most efficient manner for use by the library's clientele and the library staff on behalf of the clientele. Pertinent materials and information are brought to the attention of users before they are asked for, or in direct response to requests. Resources outside the library may be utilized to answer users' needs.

The special library is responsible for certain specific activities pertinent to its basic function of acquiring, organizing, maintaining, and utilizing a well-chosen collection. These may include, e.g., (1) conducting literature searches for specific facts and information, resulting in bibliographies and reports; (2) indexing or abstracting professional journals, technical reports, etc.; (3) compiling library bulletins, which may include abstracts from the current literature or other items of interest; (4) providing current-awareness services, including special and selective dissemination of information; (5) translating foreign language publications; or (6) other personalized services of various types.

The special library collection includes books, periodicals, audio-visual materials, special collections (maps, sheet music, manuscripts, catalogs, etc.). Some collections include various forms and types of materials, such as pamphlets, reprints, translations, yearbooks, theses, dissertations, external and internal technical reports, patents, specifications, standards, etc.

(D) *The Academic Library*

These libraries support the instructional and research programs of Federal institutions of higher education. Some of the institutions are degree-granting colleges and professional schools on the undergraduate and/or graduate level; for example, the four service academies and technical institutes (such as the Air Force Institute of Technology and the Naval Postgraduate School). These libraries must meet standards set by the appropriate civilian standardizing associations for degree-granting institutions. There are also many non-degree-granting Federal professional schools especially in the Department of Defense. Examples are the Air University, the war colleges, and the several specialized service schools such as transportation and quartermaster schools in the Army.

The librarians in the Federal academic libraries are college librarians. The services they perform are similar to those in special research libraries because many schools have research as well as instructional missions. They also have the special function of guiding resident students in making use of library facilities and resources as an integral part of their educational experience.

(NOTE: There are also Federal school libraries in the armed forces, Indian schools, etc. They are not described in more detail here because of the small number of GS-1410 Librarian positions employed in school libraries.)

FUNCTIONS PERFORMED BY PROFESSIONAL LIBRARIANS

Duties of the "professional librarian" are those whose adequate performance involves the ability to exercise judgment based on an understanding of the principles of library service—collection and organization of publications and information, users, and the means by which they are brought into effective relationship. This understanding implies a wide knowledge of library science philosophy and methodology, specific library techniques and procedures, and literature resources together with a broad educational background and, in some cases, a subject specialty and language proficiency.

For example, in book selection, the librarian will be aware of the overall needs of the community he serves, whether that community be one of scholars, specialists or the general public. He will find out which books or special materials will best help his patrons by his ability to use all the bibliographic tools available. In reference and research work, the librarian's training will have instilled in him a concept of the methodological approach necessary. He will know the obvious "first" sources, and then go on to the most complex until the problem is solved, the report is written, the information is found, or the book is cataloged.

This is not to say that specific techniques classified as professional cannot be taught to individuals who are not, by training, professional librarians. What is implied is that the adequate performance of the *full* range of professional duties requires professional judgment and a thorough understanding of the principles and objectives of each duty and its function in relation to the overall purpose of libraries.

Typical functions performed by professional librarians include the following tasks: (This list is not arranged to show what duties are performed in a particular type of library or in a particular department of a library system or in any one position. Duties performed depend upon the purpose for which the library was established, and the method of organizing and delegating responsibility for specific tasks to accomplish the mission of the library.)

I. *Administration*

Administrative duties may be performed on different levels. Some may involve overall administrative responsibility for a library, a group of libraries, or a library system. Others, such as responsibility for budgeting, for plant and equipment, and for management studies, may concern specific activities. Typical duties include:

A. Continuous integration of the library program with missions and programs of the parent organization.

B. Program planning and directing, including developing the library's collection; establishing internal library policies and procedures; and establishing policies and programs for assistance to readers; program evaluation and development.

C. Public relations and educational activities, such as (1) interpreting programs to key officials, library users, and special groups; and (2) promoting services of the library by planning publicity programs and participating in group activities.

D. Management studies, such as (1) reviewing programs and operations to identify and analyze problem areas; (2) determining and instituting work measurement and work simplification studies; (3) determining records, statistics and forms required; and (4) planning, designing, developing, and installing mechanized systems for library operations or procedures.

E. Budget and finance, which involve (1) planning and justifying library budget or funding; and (2) executing and controlling library expenditures.

F. Personnel, which involves (1) interpreting and applying personnel policies of parent organization; (2) recruiting and assigning new employees; (3) supervising work and establishing time schedules; (4) planning and implementing staff development programs.

G. Library plant and equipment, such as (1) planning and justifying library quarters; (2) determining needed supplies and equipment; (3) planning for efficient use of shelves and files; and (4) determining policies concerning physical upkeep of collections.

H. Library extension service, such as (1) recommending type, location, organization, and management of extension services, or libraries at field stations; (2) planning and installing field or extension service libraries; (3) determining nature of field service.

I. Responsibility for the adequacy and soundness of library research.

II. *Selection of material*

The selection of books, periodicals, and other library materials requires constant and extensive reading, a broad background of knowledge of the literature, ideas, terminology and leading figures in many fields, familiarity with bibliographical aids of all kinds, and a high-degree of judgment. Final selection is almost always based on reading and appraisal, or suggestions and specialized knowledge contributed by a number of persons, including executives, research workers and technicians who share the responsibility with librarians. The librarian's professional judgment is applied to achieve a coordinated policy in which competing needs and claims are balanced against the resources available.

Selection and weeding of collections are complementary and continuing processes. The needs of readers are constantly changing and selection policies and practices must be modified to keep pace with them. Typical duties include:

A. Formulation of policy, including (1) identifying the needs of readers; (2) formulating policies for selection; (3) deciding policy on interlibrary cooperation; and (4) allocating book funds between departments, subjects, collections.

B. Selection of current material, including (1) keeping in touch with publishing activities; (2) tentative selection of material from book reviews, catalogs, lists, etc.; (3) preparing lists of material needed in specific subjects; (4) deciding which material will be requested on approval; (5) deciding on number of duplicate copies and on editions; (6) deciding on acceptability of gifts; (7) making final decisions on selection of material.

C. Selection of serials, and deciding retention policies for serials.

D. Control of collections, including (1) preparing basic collection lists; (2) selection of books for extension, mobile, or temporary collections from the books in the library's general collection; and (3) examining and deciding on material to be discarded or replaced.

III. *Acquisition of material*

In the acquisition of library material, information and suggestions about sources of supply contributed by all those who aid in selection are gathered together and coordinated so that purchasing, receiving, and recording may be carried out economically and efficiently. Skill in the use of bibliographical aids of all kinds, and familiarity with the market (for new and for secondhand material) and the resources of dealers are important factors in acquisition. Acquisition of rare books and materials requires highly specialized knowledge, as does the acquisition of material published in other countries. A problem, particularly in special libraries, is the prompt acquisition of fugitive and ephemeral material, much of which is not obtainable through normal trade channels. The organization and operation of exchanges of material with other libraries and institutions raises special problems for those libraries which have publications of their own available for exchange. Administration of a share of the library's funds is a major responsibility and the librarian must constantly be alert to opportunities for advantageous purchases. Typical duties include:

A. Acquisition responsibilities, such as (1) controlling the acquisition budget; (2) negotiating with publishers, dealers and salesmen; (3) deciding on method of acquisition.

B. Ordering procedures, such as (1) designing the ordering system and supervising its operation; (2) establishing serial checking records and supervising their operation; (3) appraising highly specialized and rare materials.

C. Deciding method of disposal for unwanted material.

IV. *Cataloging, classification, and indexing*

Cataloging and classification are the main processes by means of which library materials are systematized and made available to users. In some libraries, technical reports, local publications, journals, or other documents are analyzed and indexed to facilitate use by the library's clientele.

The professional duties connected with these activities in some situations require highly specialized technical knowledges. The librarian's level of understanding of the subject matter is one of the most important factors which influence the depth of subject analysis feasible for source materials. Typical duties include:

A. Establishing classification and cataloging policies, expanding and developing classification schemes, expanding and developing lists of subject headings, establishing indexing policies, developing and operating a terminology control scheme, such as a thesaurus with lists of descriptors for use in manual or mechanized systems.

B. Classifying books by assigning them to their proper places in the system of classification used and thus determining their positions on the shelves in relation to other books. Reclassifying books because of new developments or changes in organization.

C. Descriptive cataloging, the process of examining each publication in order (1) to identify its unique features so as to distinguish it from other items; (2) to describe it bibliographically, including a description of its format and bibliographic relations to other items; (3) to record these data in a form of entry which can be integrated with the entries for other items in a collection. Cataloging rules, reference works, and other sources are consulted in determining the author or originating body, in establishing the proper form of the entry, and in determining necessary cross references.

D. Assigning subject headings, involving (1) careful examination of the publication being cataloged to determine the specific subjects with which it deals; and (2) selecting, usually through the use of standard subject heading lists, the words or groups of words which best indicate the subjects under which the material should be listed in the catalog. The cataloger must understand the requirements and special interests of the library's users so that the catalog may be suited to their needs. In some libraries, the cataloger must provide for detailed subject breakdowns and must employ terminology which reflects current thinking in the fields.

E. Indexing special collections, local publications, archives, manuscripts, and other special material to facilitate use by the library's clientele.

NOTE: In a library, indexing and assigning of subject headings are similar in that both are concerned with identifying the contents of the document. They differ primarily in that an index is a detailed key to the contents of a special collection of material, whereas an alphabetical subject catalog is normally a broad guide to all books and other items in the library. (See also the discussion of analyzing and indexing of documents on page 10 of the standard for the Technical Information Services Series, GS–1412.)

F. Performing duties concerned with the production of catalogs, lists, bibliographies, etc., when the competence of a professional librarian is required. For example: (1) deciding the physical form of catalogs; bibliographies, etc.; (2) establishing and revising filing rules or special codes;

(3) establishing and supervising cataloging records; (4) establishing and maintaining union catalogs; (5) supervising contributions, or checking and editing entries, before reproduction of union catalogs; (6) participating in cooperative cataloging.

V. *Assistance to readers*

Includes all the services which help in the effective use of the library for reading, in contrast with activities connected with answering specific questions or finding particular information. The function of fitting books to the personal needs of the individual reader is the purpose for which many of the duties are performed. Sometimes a library will work through organizational groups already formed with specific interests which may be promoted through books, and sometimes through library-initiated discussion groups, film forums or lecture courses. Typical duties include:

A. Explaining the general arrangement and resources of the library; assisting readers to locate and select books; keeping in touch with the interests of readers; providing planned reading guidance.

B. Conducting group activities; cooperating with groups; giving talks on books and reading; planning and conducting activities with children and young adults; arranging and conducting classes in the library; coordinating the library with an educational program.

C. Informing readers about books relating to their special interests; furnishing information about books, authors, publishers, book sellers; compiling and distributing reading lists; maintaining information bulletin boards; planning book displays.

Most tasks performed in offering reading guidance to young people are the same as those for adults. However, when working with children or young adults, a few specialized tasks are performed. In carrying out these special duties, the library recognizes its responsibility as an educational agency to promote a wider and more understanding use of books and libraries; to develop desirable reading habits and tastes; and to teach the use of libraries and books as tools of learning. The performance of such special services presupposes on the part of the librarian an interest in and an extensive knowledge of literature for children and young adults, an understanding of child psychology, and a knowledge of educational trends and interests.

VI. *Reference work*

Reference work comprises the functions involved in making the materials in a library available to users as sources of information, and, if these materials prove inadequate, tracing the required information elsewhere. The location of information, both inside and outside the library, requires a wide knowledge of sources of information, and familiarity with reference techniques. The reference duties in all types of libraries are essentially similar though there are wide variations in the kind of aid given, depending upon the nature of the clientele served and the policies and resources of the library.

Building up the reference collection is an important duty, but this has been discussed under "Selection of Material". Other typical duties include:

A. Establishing reference policies, such as determining the organization of reference service, the groups to be served, and the extent and kind of service to be given to individuals.

B. Answering reference questions which have a wide range in difficulty varying from those which can be answered by brief consultation of general or special reference tools to elusive and involved questions which require extended searching in many sources both within and without the library. (The latter may overlap the function of "literature searching" described below.) Reference service may include locating materials and suggesting resources in other libraries. This involves the use of union catalogs, union lists of various kinds, the services of bibliographical centers, the use of semi-automated or automated retrieval systems, and arranging for photographic reproduction of materials.

C. Instructing library clientele in reference methods and information sources, in the use of catalogs and indexes, and

in the techniques of searching; organizing and maintaining information files; verifying bibliographical data for interlibrary loans; contributing to bibliographical projects; planning exhibits of special materials.

D. Providing research assistance. General libraries with special collections may provide research assistance on occasion, and academic libraries may also offer similar assistance to faculty members or research students. Special libraries in organizations where research is carried out will more frequently become involved in research in subjects where literature or documents play an important part. Such services are more akin to literature searching discussed in the following paragraphs (item VII).

VII. *Literature searching*

Includes the systematic, comprehensive, or exhaustive search for information bearing on a specific problem or subject. It is performed as a special service for subject specialists and is considered an intermediate stage between reference work and research. Results of the search, regardless of retrieval systems, are presented in the form of bibliographic references, abstracts, extracts, opinions, documents, or direct answers.

Retrospective searches, current awareness programs, and automatic dissemination programs are examples of literature searching services which may be provided.

(NOTE: Literature searching as described in more detail on page 11 of the standard for the Technical Information Services Series, GS-1412, is also performed by librarians. The functions performed are similar, but the knowledges, methods, and techniques used may differ.)

VIII. *Compiling bibliographies*

The preparation of bibliographies may be performed in connection with reference or literature searching activities in the library. In some situations, it may be a separate work program. Some bibliographies are compiled at the request of individuals or organizations, while others are initiated by the library itself. Most libraries maintain continuing bibliographies on subjects of local and special interest.

Bibliographies will vary from short lists of books, periodical articles, and pamphlets for the general reader, to long lists of scholarly or technical materials for research workers, technicians, officials and other specialists. Many bibliographies will include annotations describing and evaluating the materials listed.

IX. *Researching with information*

This includes the solving of research problems without recourse to experimentation by gathering, analyzing, and interrelating information from a combination of sources. The initial phases of this process may be very similar to the work involved in literature searching.

X. *Other*

This includes the professional responsibility for other library functions which are primarily nonprofessional in character, such as:

A. Establishing systems and planning procedures for registration of borrowers and circulation work is usually done by professional librarians. Actual registration and circulation work, however, is nonprofessional in character. In larger libraries where there is sufficient work to justify using nonprofessional staff, professional supervision may be provided to see that the staff understands and follows administrative policies.

B. The physical processes involved in preparing material for use are nonprofessional in character, but determining methods and routines are professional, since the way in which library materials are treated physically has a direct relation to the effective functioning of the library. A nonprofessional worker, however, may specialize in this phase of library work and supervise all these operations.

C. Keeping books and other library materials in good physical condition is an activity common to all libraries, although problems will vary in different kinds of libraries. In the case of rare and expensive items, technical processes are involved. Usually, it is a duty of a professional worker to understand and evaluate them, even though the actual work is done by nonprofessional staff members. Determining policies concerned with physical upkeep, making decisions on methods to be used, and the general supervision of physical upkeep processes are generally professional assignments.

D. The usefulness of any library collection depends upon the ease and speed with which books and other library materials can be located when needed. Most duties concerned with the care of shelves, files and equipment are nonprofessional in character. The planning of shelf arrangements, planning and supervising an inventory of books and other library materials, and planning shelving procedures are tasks generally performed on a professional level.

OFFICIAL TITLES AND SPECIALIZATIONS

A. *For Librarians who are subject-matter generalists*

Librarians who are subject-matter generalists render services related to *general or specialized collections.* They must be equipped with a breadth of knowledge in many subject fields, coupled with an understanding of the basic principles of librarianship. Regardless of the type of collection serviced, the following titles are authorized:

Librarian should be used for all nonsupervisory professional librarian positions. It reflects a knowledge and understanding of all aspects of professional library service (including selection, acquisition, cataloging and classification of materials, bibliographic and readers' advisory services, reference and literature searching service, and library management).

An appropriate modifier or specialization should be added *only* when authorized in the succeeding paragraphs and item "B" below.

Supervisory Librarian should be used when the position includes responsibility for supervising a number of librarian or other professional positions and the supervisory duties and responsibilities constitute a regular part of the position, and are of such significance as to require supervisory qualifications. (*Note:* See "Evaluating Supervisory Positions" on page 12 of the Guide for Classification of Positions Providing Professional-Level Library and Information Services.

Administrative Librarian should be used for those positions which include administrative, staff and program responsibilities. Librarians in these positions provide guidance for improving library operations and services, carry on library planning and development activities, program evaluation, organization of group services, coordination of library programs, etc. This title should also be used for librarians who administer a large installation library and branch library program and whose functions are in the area of program management and development rather than supervision.

Library Director includes positions the duties of which are to provide the leadership, technical guidance, and direction to a library program, a group of libraries, or a library system. Supervision of other employees is inherent in these positions. Positions warrant this title *only* when they have managerial responsibilities great enough to exclude them from coverage by the Supervisory Grade-Evaluation Guide, Part II. Includes positions such as the head of a very large (national) library, or an agency or department's library, library system or group of libraries.

B. *For Librarians who require specialized knowledges*

In highly specialized libraries, the work often lies chiefly in one subject-matter field, or closely related subject areas. To serve subject specialists who are the principal users of these libraries, some librarians require a substantial knowledge of a specialized subject or field of endeavor. Such subject-matter knowledge typically covers a broad field, rather than a deep subject knowledge and competence related to a specific discipline or field of interest, or a full knowledge of the state of the art. Because materials in libraries are often in foreign languages, some librarians must have a proficient knowledge of one or more foreign languages.

The following specializations are to be used (*a*) when the duties of the position require a knowledge of the basic principles, theories, practices, techniques, terminology and expressions of a discipline or specialized subject-matter area; or a comprehensive knowledge of one or more foreign languages sufficient to read library material fluently; *and* (*b*) when the need for such specialized subject-matter or language knowledges are a significant factor in the recruitment and assignment of personnel:

Subject-Matter Specializations

Biological Sciences
Medical Sciences
Physical Sciences
Social Sciences
Engineering
Music
Business and Industry
Education
Fine Arts
Humanities
Law

Foreign Language Specializations

Arabic
Germanic
Oriental
Romance
Slavic

Titles for individual positions should be constructed to reflect the specialized knowledges required to perform the work assigned. For example: Librarian (Social Sciences); Supervisory Librarian (Physical Sciences-Slavic Languages); Librarian (Romance Languages); Library Director (Law). When dual subject-matter specializations are required, these may be reflected in the title, e.g. Librarian (Fine Arts and Humanities).

GRADE-LEVEL EVALUATION

The "Guide for the Classification of Positions Providing Professional-Level Library and Information Services" is to be used in determining the grade level of librarian positions.

In applying the Guide, at least Level II of Factor 3, Knowledge Requirements, is appropriate for positions classifiable in the Librarian Series, GS-1410. This is based on the premise that positions classified in the GS-1410 Librarian occupation require, as a minimum, a professional knowledge of librarianship and a broad knowledge of literature equivalent to that represented by a master's degree in Library Science. Thus, if a determination has been made that the work performed *requires* the professional knowledge of librarianship, the fundamental knowledge requirements warrant assignment of Level II for Factor 3. (This does not preclude assignment of Level III to any position when the fundamental knowledges required so dictate.)

Any limitation in the duties and responsibilities related to management of the collection or performance of professional library functions will be reflected in the assignment of degrees under Factor 1, Scope of Assignment, and Factor 2, Level of Responsibility, rather than under Factor 3.

If the work assignment does not require the foundation of knowledge at least the equivalent of the Master's Degree in Library Science, or if the incumbent does not possess this level of qualification, consideration should be given to classifying the position in the Library Technician Series, GS-1411, or in the Technical Information Services Series, GS-1412.

FACTOR 1, SCOPE OF ASSIGNMENT
LIBRARY SERIES GS-1410
TECHNICAL INFORMATION SERVICES SERIES GS-1412

Degree A	Degree C	Degree E
Assignment of average, normal, regular, difficulty relating to a library function--cataloging, indexing, reference service, literature searching, etc. Defined segments of more difficult work to provide training for higher level work or In charge of a library or information service restricted in scope or coverage. Requires training and competence in theories, principles, and techniques of librarianship or one or more professional, scientific, or technical disciplines or subject matter areas. Assignments: include performance of one or more functions considered of average or normal difficulty because of limited scope, coverage or size of the collection :concern collection of materials extensive in scope, coverage or size, with limited or restricted duties :seldom involve detailed subject analysis, extensive searching, interpretation or evaluation of re-	Exceeds degree A in breadth and/or depth of assignment; encompasses work of more than average or normal difficulty. "Specialist" in functional area, subject, foreign language(s) or geographic area. Performs broad assignments, special projects, or staff studies relating to program planning, management, surveillance or coordination of services, or In charge of library or information service, or subdivision of larger facility, providing comprehensive and selective reference in a specialized subject area or broad areas of general interest. Requires specialized professional or technical experience and proficiency in particular function, services, programs or projects; in subject area or field of interest extensive in coverage or penetrating in depth; or in application of theories, principles, and techniques of librarianship. May require high degree of competency	Exceeds substantially degree C in responsibility for formulating, developing, coordinating or directing programs, policies, techniques, or operations; or in understanding, use and dissemination of research information in complex or advanced fields of knowledge. Requires extended and highly specialized experience in application of theories, principles, and techniques of librarianship in general library system or research libraries with national significance or impact, or analyzing, interpreting, evaluating or developing information in intensive and extensive subject areas; or developing techniques, methodologies or working tools of highly specialized information service with national significance or impact. Work with collections which are broad in scope and penetrating in depth, with large-scale operations or programs of national significance and impact. Provision of consultative services and advanced information

FACTOR 1, SCOPE OF ASSIGNMENT
-2-

search literature; or proficiency needed to read and process technical documents in a foreign language area; or administrative, staff, or other elements of difficulty considered above average.

Serves as individual in charge of a library or information service restricted in scope or coverage, and personally performs work of the degree A level of difficulty.

in reading and processing of technical material in several foreign languages; in use of various documentation systems, or automatic data processing equipment.

Works with collections which are broad in scope and/or penetrating in coverage.

Performance of one or more functions as a specialist, requiring application of either penetrating knowledge of a particular subject and related subjects, a broad knowledge of a subject field, or special bibliographic competence or a librarian in a complex of subjects. May require proficiency in two or more foreign languages.

Work is done in connection with difficult materials (e.g. government documents, serials presenting special bibliographic problems); or materials in new fields of knowledge.

Staff assignments or special projects requiring participation in formulating policies, developing program plans, coordinating staff activities, methods, or techniques.

In charge of research or reference dollection personally performing work of the degree C level of difficulty.

embracing broad subjects or programs of the agency, requiring application of extended experience in an intensive and extensive subject-matter area.

Performs original development work in one or more functions in a large-scale operation, requiring application of extended experience in librarianship or documentation techniques and/or highly specialized

FACTOR 2, LEVEL OF RESPONSIBILITY
LIBRARIAN SERIES GS-1410
TECHNICAL INFORMATION SERVICE SERIES GS-12

Degree A	Degree C	Degree E
Availability of Guidelines and Originality Required		
Work is performed within framework of specific operating instructions and procedures, under clear-cut guides and policies; follows standard applicable tools as agency-generated manuals. Few opportunities for use of originality. --selection or acquisition of material requiring limited use of judgment. --decisions pertaining to cataloging, classification and assignment of subject headings limited to materials where choice of entry and rules to be followed are clearly established. --searches are limited to those which can be handled in standard reference aids. --preparation of bibliographies limited to sources readily located and to limited bibliographic descriptions.	Work is performed within limits of objectives established by the organization. General means of accomplishment included in policy statements, delegations of authority, procedural manuals or operating instructions. Must be familiar with extensive reference sources; be resourceful in finding materials or information requiring extensive searching within or outside the library or information facility; possesses full understanding of library or documentation techniques, methods and tools; uses seasoned judgment in applying guidelines and techniques. --selection and acquisition requiring good judgment and discrimination in maintaining comprehensive and well-balanced collection. --descriptive cataloging, classifying and assignment of subject headings demanding extensive knowledge and discriminating use of variety of	Expert consultants and technical advisers recognized for outstanding competence, serve as authoritative sources of information and leaders in their programs. Originality, initiative and resourcefulness are prime requirements. --responsible for use of original and constructive thinking in development of program policies, plans or objectives; or in organization of library or information services; or in devising new approaches, methods or techniques for accomplishment of objectives--or --greater need for independent analysis, interpretation and evaluation of highly complex, controversial, or abstract information; or deeper understanding of intellectual processes associated with cataloging, classification, indexing, storing, or retrieval of documents; greater insights into patterns of usage of

reference sources and tools; extensive and critical searching for sources of information; exercise of experienced judgment in determining cataloging principles, and the extent of subject analysis necessary.

--reference and literature searching require selective judgment in use of variety of reference sources; in extensive and critical searching for sources; in evaluation of specialized information on specific topics; in use of material not ordinarily considered related to field involved; or in locating, selecting, and organizing information in publications not adequately covered in catalog or usual bibliographic controls.

--selecting, analyzing and organizing descriptors and identifiers for efficient retrieval of information by electronic data processing equipment using judgment in use of a thesaurus.

--use of experienced judgment in determining scope of special bibliographies.

--administrative responsibilities requiring experienced judgment in applying broad knowledge of library management, budget, and policy determinations, and in program implementation and evaluation.

literature--or

--greater need of seasoned and experienced judgment in adaptation of existing techniques, methods, or operations to novel or unprecedented problems or situations.

Personal Contacts---

Contacts are to maintain cooperative working relationships to obtain and provide information, including those within the library or information service and those with clientele.	Significant contacts to establish and maintain cooperative work relationships to provide, obtain, or exchange information. Contacts are with clientele of library or information services; with staff of other library and information facilitries, or with State, local or private industrial organizations.	Contacts are of vital importance to development and effectiveness of the library or information program. Establish and maintain continuing consultative relationships with peers for purpose of locating and exchanging information. Develop and foster working relationships with other information or library centers.
Occasional participation in informational programs, such as book talks or presentations to the general public.	Some may work closely with dealers, donors and exchange sources in acquisition; others are responsible for establishing necessary contacts within community or organization served to insure usefulness of library and effectiveness of information service.	Exchange information regarding new developments and techniques and cooperate on programs of mutual interest.
	Attend seminars and meetings of professional and technical organizations for purpose of keeping current or representing organization.	Serve as spokesmen for policies, programs and objectives of their agencies in contacts with high level administrative and executive personnel in the agency, or with State and local officials in charge of libraries or information facilities. Represent their organizations in dealings with private organizations interested in Agency's program. Represent Agency on interagency committees, national or international conferences. Contacts involve discussions of needs and objectives of program, new methods or techniques being developed, or to elicit understanding or support for the program.

FACTOR 2, LEVEL OF RESPONSIBILITY
-4-

Supervision Received--

Routine or repetitive duties performed under technical supervision of higher grade specialist in same area of competence. Supervision includes provision of instructions on procedures and techniques, advice and guidance. Work is reviewed or revised, as required.

Employee in small or limited library, bookmobile, extension service, document collection may operate independently or be under administrative supervision. Employee receives technical guidance and direction from librarian or higher grade specialist in same area of competence in another location or at higher level of authority. Specialized services are provided by parent library or at central location. Policies, objectives, and methods for operation are well-established.

Increasingly difficult duties may be assigned as training for higher level functions. Work assignments,

Work under general technical supervision of unit or section head. General instructions as to policy and objectives, methods and techniques to be used. Supervisor is available for consultation and advice. Subject specialist may provide guidance when needed.

Decisions on matters within scope of employee's language and/or subject proficiency, or on methods of locating, retrieving and presenting information are made within bounds of delegated authority. Discerns nonroutine actions and refers to proper authority. Work may be reviewed.

Employees who perform advisory, coordinating, or administrative duties in a library system, or major information service, work under general technical supervisor. Make recommendations on development of collections, suggest changes in services and technical and administrative policies. Librarians in charge of

Work under administrative supervision with considerable freedom from control. Superior discusses overall policies and plans and provides administrative direction.

Resolves most questions that arise; held accountable for formulating and executing plans and procedures. Work is reviewed for overall effectiveness and compliance. Only technical matters affecting agency policy are referred to higher levels.

Subject specialist with responsibility for preparing analytical, evaluative state-of-the-art reports has results accepted as valid. Work not subject to regular review for scientific and technical accuracy.

Employees in charge of independent library work under administrative supervision only. Direct work of one or two professional and several nonprofessional employees. Determines scope of collection, extent of

selected to provide breadth or depth of experience are carefully reviewed.	independently operated library or branch library receive guidance from coordinating office. Librarian uses judgment in coordinating operations, determines pattern of organization of collection and provides services. End results are reviewed.	service, technical and administrative policy, and operating procedure. Develop and justify the budget, recommend personnel actions, decide on equipment and facilities. Responsible for evaluating quality of services.

FACTOR 3, KNOWLEDGE REQUIREMENTS
LIBRARIAN SERIES GS-1410
TECHNICAL INFORMATION SERVICES SERIES GS-1412

Level I	Level II Positions require knowledge in subject matter or librarianship below	Level III Positions require knowledge in subject matter or librarianship
Subject Matter----------	----------	----------
Basic principles, theories, practices, techniques, terminology and expressions of a discipline or subject-matter field. Understanding of standard methods, procedures and techniques of research and analysis in subject field. Knowledge of literature resources in the field. Equivalent to bachelor's degree with major or minor in subjects related to field of work.	Intensive knowledge of specialized, technical or scientific area relating to some aspect of a discipline or mission-oriented field of work; a substantial knowledge of a broad subject-matter field, or a substantial knowledge of a complex of subjects within a mission-oriented field.	Comprehensive knowledge of subject field or complex of subjects, discipline or mission-oriented, requiring long period of pre-professional and professional academic training (e.g., Ph.D. or M.D.) or equivalent experience. Advanced subject-matter knowledges to perform research with information. Involve comprehensive understanding of broad subject-matter areas or intensely specialized fields of research which are: highly theoretical, abstract or controversial; in a continual state of growth or change; on the frontiers of knowledge; involve problems of great importance to scientific community, the agency, or the public; or require advanced knowledge in field of national security, or military science. (These positions are usually classified to the subject-matter series.)

FACTOR 3, KNOWLEDGE REQUIREMENTS
-2-

Library		
Knowledge of library science, documentation, or other information handling techniques, practices, methods, tools, etc. Knowledge equivalent to a minor in library science.	Full professional knowledge of theories, objectives, principles and techniques of librarianship. Breadth of knowledge of literature resources in many subject fields. Considerable depth of information on topics of particular interest to specific clientele. Capacity to meet service needs in particular library situation. Knowledge equivalent to master's degree in library science.	Advanced knowledge of librarianship required long period of pre-professional and professional academic training (Ph.D.) or equivalent experience to perform original and authoritative development work in one or more functions within library science-- advanced knowledge of library administration and management techniques advanced knowledge of techniques of librarianship and information systems or network designs, or advanced knowledge of librarianship, together with intensive specialized knowledge of a subject field and ability to read or translate fluently advanced specialized material in two or more foreign languages.
Foreign Languages		
Knowledge sufficient to read and interpret bibliographical citation in varied fields; or to read and translate nontechnical material or repetitive or standardized technical information which identifies books, documents, reports, etc.; familiarity with common reference materials and in translations.	Knowledge of two or more languages or language area to read and abstract, index, or translate difficult types of subject matter; proficiency requires specialized vocabulary and knowledge of subject matter.	

ILLUSTRATIVE WORK SITUATIONS FOR

FACTOR 1, SCOPE OF ASSIGNMENT

Librarian Series, GS-1410

Definitions:

Degree A - Average difficulty; limited scope or coverage; training and competence in subject
Degree C - Above average difficulty; broad scope or penetrating coverage; specialized experience
Degree E - Program development; broad scope and penetrating coverage; extended and highly specialized experience

Degree A	Degree C	Degree E
ADMINISTRATION		
In a small general library, or a limited specialized collection - serves as librarian in charge - provides general circulation, reference, and reader's advisory service to the general public, or specialized groups, such as servicemen, hospital patients, children, etc. - collection is small enough that it can be serviced by 1-2 professional personnel, and several clerical or subprofessional assistants or volunteers	In a general or special library - serves as librarian in charge - serves professional, scientific, technical and others in the parent organization, and field offices; library is open to the public for reference purposes - plans expenditures for equipment, supplies and binding - plans library layout and use of space - directs work of 1-2 professional librarians	In a library with an extensive national program serving a specialized group - or - in an administrative office with responsibility for policy and programs of a national network or a number of independent libraries - is responsible for overall staff planning in a library system - evaluates needs of users and libraries in a system, and evaluates quality of performance - evaluates materials and reports of libraries, makes recommendations for solutions of special problems - develops overall training material and guides for field librarians, or non-technical supervisory personnel - initiates research and development projects for improvement of library program

Degree A	Degree C	Degree E
ADMINISTRATION--(Continued)		
		In an administrative office with an extensive worldwide library program - is responsible for developing policies for accomplishing the library mission - recommends policies to top management, and provides policy guidance to lower echelon - establishes and adjusts standards to meet agency needs - analyzes program accomplishments and determines needed changes - develops guidance for overall staffing and management procedures - iniates research and development projects in library management
SELECTION, ACQUISITION AND COLLECTION DEVELOPMENT		
In a small special library - selects books and periodicals and submits list to a library committee for approval - searches for bibliographic data for publications requested	In a general or special library - responsible for selection, acquisition and collection development In a large general library or library system - responsible for selection of reading and a/v materials, covering a broad range of subjects and requiring experienced bibliographic competence - determines best method of procurement (purchase, gift, exchange) for both foreign and domestic materials	In a large general library system - formulates adult book selection policy - gives overall direction to developing the collections - gives leadership in specialized technical areas - with a few professional assistants, promotes system-wide balance in the collection - determines distribution of adult reference material for maximum use - evaluates quality and coverage of various branch collections

Degree A	Degree C	Degree E
SELECTION, ACQUISITION AND COLLECTION DEVELOPMENT--(Continued)		
	In a large general library system - serves as selection official for fiction and nontechnical materials purchased centrally for distribution, and involving expenditure of large sums of money - may include review and decision on purchase in advance of publication	
	In a research library - selects and acquires foreign and domestic material to support research and program requirements - develops a comprehensive and highly selective collection, containing current and retrospective material in English and foreign languages in special subject area(s)	
CATALOGING, CLASSIFICATION, INDEXING, ABSTRACTING, ETC.		
In a large general library - performs descriptive cataloging, recataloging, or cooperative cataloging - may be assigned to a specific subject or language area, requiring competence in either - catalogs a variety of types of library materials - determines main entry and other bibliographic data to uniquely identify the item	- serves as a specialist in cataloging a wide variety of materials required to support users at an academic or professional level - catalogs and classifies materials in a subject characterized by rapid change or development - performs descriptive and subject cataloging of difficult materials, not found in standard sources	

Degree A	Degree C	Degree E
CATALOGING, CLASSIFICATION, INDEXING, ABSTRACTING, ETC.--(Continued)		
- prepares and maintains authority files - assigns classification numbers - assigns subject headings based on standard sources - prepares cross references	- catalogs incunabula, requiring extensive knowledge of history of books, subject, or printing In a large library - may have responsibility in area of subject or language - participates in developing a pattern of applying a classification scheme and in formulating cataloging policy - resolves cataloging conflicts in area of specialization - cooperates with LC by preparing original cataloging copy, possibly for publication In a national research library - recommends new subject headings and/or classification scheme for nation-wide standard - resolves conflicts in entries and cataloging in assigned specialized area	
REFERENCE, READER'S ADVISORY, LITERATURE SEARCHING, ETC.		
In a small special library - provides reference and bibliographic services to professional, technical and research staff - prepares reading lists and bibliographies on special or general subjects	In a large research or special library - locates, selects and analyzes material to answer selective and/or comprehensive reference questions, requiring special subject or bibliographic competence	In a large general library system - serves as coordinator of adult services - implements objectives in enabling legislation in planning adult service programs - establishes standards of performance for adult reference and advisory service throughout the system

Degree A	Degree C	Degree E
REFERENCE, READER'S ADVISORY, LITERATURE SEARCHING, ETC.--(Continued)		
- prepares simple annotations, abstracts or indexes - provides interlibrary loan service by establishing channels of communication with other libraries In a large library, extensive in scope, coverage and size - locates and selects material to answer a variety of general and/or specialized reference questions - does not require subject competence, but a working knowledge of terminology and reference tools of the subjects covered by the library - prepares reading lists or bibliographies on special or general subjects - prepares simple annotations, abstracts or general indexes - provides advisory service on the reference and bibliographic sources of the library - refers complex questions or searches to higher grade specialists	- evaluates expertise, timeliness, and relevance of specialized information - performs difficult bibliographic searches, where there is a lack of clarity in the request, no defined parameter, lack of detailed identification, etc. - search often involves information not included in catalogs or other standard bibliographic sources - anticipates need for and recommends preparation of special bibliographies	- explains adult service policies and functions to visitors, foreign librarians, library school groups, etc.

This series includes positions involving nonprofessional or technical work in libraries which are administered in accordance with the practices and techniques of professional librarianship. Such work *primarily* requires a practical knowledge of library functions and services; and ability to apply standard library tools, methods, and procedures to the service needs of the particular library.

With the publication of this standard, the explanatory material published in September 1957, under the title and code of Library Assistant Series, GS-1411, is rescinded.

EXCLUSIONS

Excluded from the GS-1411 Series are:

1. Positions in which typing, stenography, or other clerical work governs the grade level; also positions at GS-3 and below which include library aid work in combination with other duties requiring the services of a *qualified* typist, stenographer, or dictating machine transcriber. (See additional instructions for classifying mixed positions in the Clerk-Stenographer and Reporter Series, GS-312; the Clerk-Dictating Machine Transcribing Series, GS-316; and the Clerk-Typist Series, GS-322.)

2. Positions in which the clerical work is primarily of a general office nature (e.g., personnel clerk, accounts maintenance clerk, file clerk, etc.). (See individual series for these positions.)

3. Positions which require a full professional knowledge of the theories, principles, and techniques of librarianship. (For a more detailed discussion of the duties of the professional librarian, see the Librarian Series, GS-1410.)

4. Positions involving specific library techniques and functions when the work requires professional, scientific, or other specialized training in the subject matter involved. (For a more detailed discussion relating to the classification of such positions, see the Technical Information Services Series, GS-1412.)

5. Positions involving clerical or nonprofessional duties concerned with the collection, storage, or retrieval of publications, audio-visual materials, magnetic tape, or other information media when the collection is not maintained in accordance with professional library practices and procedures. (See the appropriate clerical or nonprofessional series, e.g., the Archives Assistant Series, GS-1421; the Mail and File Series, GS-305; or the Computer Aid and Technician Series, GS-335.)

COVERAGE

A. *DISTINGUISHING BETWEEN LIBRARY AID/TECHNICIAN AND OTHER NONPROFESSIONAL OR CLERICAL POSITIONS*

In making a decision as to the appropriate occupational series for positions involving clerical or nonprofessional work in a library, careful consideration is necessary to determine the work which governs the *paramount* qualification requirements. Involved in making this decision is a consideration of (*a*) the relative grade level of the work which requires specialized training or experience, and (*b*) the relative importance in the position of the library aid/technician duties vs. the typing, stenographic, or other specialized skills. Also for consideration is the nature of the career ladder in which the position is located, as well as the needs of management.

There are some rules of thumb which can be applied to decide whether or not positions should be classified in the GS-1411 Series. These are furnished as guides but do not cover all work situations.

The following positions are *included* in the GS-1411 Series when the paramount qualification requirement is application of a "specialized" knowledge of library operations (i.e., GS-4 and above):

1. Positions which consist solely of library technician duties.
2. Positions in which the library technician duties govern the grade level of the position.
3. Positions which also include duties requiring a qualified typist, stenographer, etc., but the *paramount* qualification requirement is specialized experience or training as a library aid/technician.

The following positions *may be included* in the GS-1411 Series even though the positions do not require "specialized" experience in library operations for in-hiring purposes, i.e., *at GS-3 and below:*

> Positions involving library aid duties where the individual is performing work which leads to advancement within the ranks of library aids/technicians to a higher-level nonsupervisory or supervisory position. Under these circumstances, positions which are essentially clerical in nature and do not require "specialized" experience for in-hiring purposes (e.g., GS-3 and below) may be classified to the GS-1411 Series. In these situations, the lower grade work provides a career ladder for movement to these higher-grade positions requiring specialized experience.

The following positions are *excluded* from the GS-1411 Series even though they include some duties typically performed by a library aid/technician:

> Positions which are isolated or dead-end assignments within the library. For example, where the library affords little opportunity for advancement or for a career in the library field, the organization in which the library is located may feel it is wise to fill nonprofessional positions in the library through the career development pattern established for clerks, typists, dictating machine transcribers, stenographers, etc. Such positions typically include duties which are appropriately classified by other standards as file clerks, dictating machine transcribers, etc.

B. *DISTINGUISHING BETWEEN LIBRARY TECHNICIANS AND PROFESSIONAL LIBRARIANS*

In determining whether positions are classifiable to the Library Technician Series, GS-1411, or to the Librarian Series, GS-1410, careful consideration should be given (*a*) to the duties and responsibilities of the position, including the supervision received; (*b*) to the knowledge and abilities required to perform the work; and (*c*) to the recruitment sources, the career ladder, and needs of management. For example:

a. *Library Technicians* typically are proficient in one or more functional areas or in certain limited phases of library service work *in the particular organization in which they are employed.* Normally, they do not possess the wider knowledges required to work in other functional areas or other types of libraries.	*Librarians,* even though assigned to one functional area, are required to apply a knowledge and understanding of each duty and its function in relation to the overall purposes of the library. They must possess a knowledge of library principles, theories, and techniques, and of literature resources, sufficient to permit freer movement to other functional areas, or to other library organizations.
b. *Library Technicians* generally follow established methods and procedures which have been developed by librarians. Occasionally, they may develop individualized work plans or procedures, but these are typically in limited or nonprofessional areas (such as mechanical preparation, physical upkeep, or circulation of materials).	*Librarians* are responsible for planning and developing the library system, functions, or services; and for the formulation, development, and establishment of operating methods or procedures, requiring a broad understanding of the interrelationship of the various library activities.
c. *Library Technicians* typically learn library techniques and operations on the job, or in specific training courses related to the work being done.	*Librarians* gain a knowledge of library science, and of literature resources, through a broad cultural or academic background (e.g., equivalent to a bachelor's degree), plus academic training in the theories, principles, and techniques of librarianship (i.e., equivalent to a master's degree).
d. *Library Technicians* work either directly or indirectly	

under supervision of a Librarian; in some situations through a Supervisory Library Technician.

TITLES

Approved nonsupervisory titles for positions covered by this standard are as follows:

LIBRARY AID, GS-1 through GS-3

LIBRARY TECHNICIAN, GS-4 and above.

Supervisory positions are included in the coverage of this series. When supervisory duties and responsibilities are of such significance in the position as to require supervisory qualifications, the position should be designated as supervisory by addition of the prefix "Supervisory" to the title, i. e.—

SUPERVISORY LIBRARY TECHNICIAN, GS-4 and above.

This standard does not provide criteria for classifying positions in which supervisory duties are grade-controlling. See Part I of the *Supervisory Grade-Evaluation Guide* to determine the grade-level classification of supervisory positions.

CLASSIFICATION FACTORS

The grade levels established for Library Aid and Library Technician positions take into consideration the following classification factors:

1. *Difficulty of assignments.*

This factor reflects:

a. The type of tasks performed or steps taken: Whether they are simple and repetitive or complex and varied; whether they are clerical, manual or nonprofessional library routines, or quasi-professional or technical library operations concerned, e.g., with acquisition, cataloging, or reference work.

b. The knowledges and abilities required to perform the assignments: Whether assignments require a limited knowledge of library practices and procedures or a substantial knowledge of library functions, services, and techniques; whether assignments require ability to understand the terminology, content and classification scheme of the collections serviced; whether a practical working knowledge of one or more foreign languages is required to identify foreign documents or other library materials.

c. The application of established guidelines: Whether the guidelines are few in number and directly applicable to the situation or whether they are numerous and complex and subject to interpretation.

2. *Personal contacts* *

This factor reflects:

a. The nature and purpose of person-to-person contacts within the library and with library clientele, or with dealers, donors, and exchange sources.

b. The knowledges required and degree of authority accorded the employee to speak for the organization in personal contacts.

3. *Level of responsibility*

This factor reflects:

a. The nature and complexity of decisions which are made: Whether judgments of any kind are permitted or the extent to which initiative, resourcefulness and discretion must be utilized in carrying out the assignment.

b. The degree of supervision received: Considered here is the manner in which work is assigned and reviewed: Whether supervision is close and direct or of a general technical nature; and the extent to which completed work is subject to review or accepted as technically accurate.

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* Many GS-1411 positions do not include personal contact work. The absence of this factor is *not* necessarily a weakening influence on the grade level. Positions should meet criteria for either the factor "Assignments" or "Personal Contacts", or both, in addition to the characteristics for "Level of Responsibility."

NOTE TO USERS

This standard includes criteria for use in classifying positions at grade levels GS-1 through GS-7. Absence of criteria describing positions at the GS-8 and higher levels does not preclude classification in grades above GS-7. For more responsible assignments, higher grade levels may be used through extension of criteria presented in this standard. For instance, ample justification may exist for classifying a position to the GS-8 level based on assignments with the basic knowledge requirements described at the GS-7 level when there is delegated significantly more responsibility and independence than called for at the GS-7 grade level.

GS-1411-1 Library Aid GS-1 GS-1411-1

GS-1 Library Aid positions require no previous experience. Tasks are simple and full performance is expected after a few days' training or on-the-job practice. Some positions may also include continued training and supervision in tasks of the GS-2 level.

Assignments

GS-1 assignments include a limited number of simple, routine tasks, requiring the repetitive application of a few specific instructions. The guidelines used are clearly applicable and so limited in number that they are readily memorized or applied from oral instructions. Strict adherence to governing instructions is required.

The following examples are typical GS-1 assignments: (1) shelving books or magazines, as directed, in accordance with a simple predetermined and clearly designated alphabetical, numerical, or other arrangement; (2) loading and arranging books on trucks, replacing material on shelves, maintaining orderliness and neatness of shelves, shifting book collections within the library stacks; (3) counting duplicate copies in a shipment (but not verifying the book specifications) for comparison with invoices, stamping ownership on the edges of new or rebound books, apply-

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ing card pockets, spraying lacquer to protect spline markings, or other essentially one-step operations connected with receiving books, when such assignments require little training and involve performance of similar tasks over and over again; (4) other duties of a simple, repetitive nature, such as assembling and stapling booklists, assisting in occupancy counts, weeding files, as directed, by simple notations (e.g., color designations).

Personal contacts

Few or no personal contacts are made outside of the immediate organization in which employed.

Level of responsibility

GS-1 Library Aids apply specific instructions. They have little responsibility beyond accuracy, production, and reasonable safety procedures to protect library materials from loss or damage.

Work is performed under close supervision, or direct instructions, of a higher-grade employee or supervisor. Because of the simplicity of continuing specific assignments, little supervision is needed after training beyond seeing that materials are provided and that production is steady. Work is spot checked for accuracy and neatness. Trainee assignments are reviewed for accuracy.

GS-1411-2 Library Aid GS-2 GS-1411-2

GS-2 Library Aid positions are characterized by limited training in or acquaintance with the library's services and procedures. Previous library experience is not required. This level also includes performance of a variety of library duties of limited complexity as part of an extended training level for developmental progression to GS-3.

Assignments

GS-2 assignments include performance of a number of simple uncomplicated and repetitive clerical or manual library routines. Such duties require application of a limited variety of procedures and specific guidelines. The established order of their accomplishment is clear, and, except upon direct instructions, does not change; for example, performing simple and repetitive library routines in paging, shelving, preparing materials, charging and discharging books, etc.

Assignments at the GS-2 level provide training in, and experience with, library routines and operations, and some acquaintance with the library's organization and services. Incumbents acquire knowledges on the job related to the functions to which they are assigned, such as familiarity with shelf-listing arrangements, alphabetical and numerical filing according to a decimal system, call numbers, physical location of various collections, library terminology, etc.

Duties performed at this level may be continuing assignments or may provide training for higher level work.

Personal contacts

Some positions exceed the GS-1 level in that they require limited personal contact with the general public or other library clientele. In such work situations, the contacts are to provide routine, readily available, uncomplicated information (e.g., giving directional information, such as location of the catalogs, special reading rooms, etc.).

Most GS-2 assignments, however, do not include significant personal contacts outside of the immediate organization in which employed.

Level of responsibility

Library Aids GS-2 apply governing provisions strictly in accordance with instructions so that there is little ingenuity or judgment required. Guidelines used are subject to specific supervisory explanation and interpretation. The main responsibilities of incumbents are to follow instructions and to be accurate in the work performed.

Work is performed under close supervision of a Librarian or Supervisory Library Technician of higher grade, or in accordance with detailed instructions. The supervisor is available to provide assistance on matters not covered by instructions or guidelines.

Examples

GS-2 Library Aid positions normally include the performance of one or more of the duties described below. These are illustrative and not all inclusive.

(1) Works with a general or specialized collection. Shelves books and magazines in accordance with the library's shelf-list order (call number) requiring some familiarity with the alphabetical and numerical designations of the library's classification scheme. Files pamphlet material in vertical files, and special material (such as recordings) in designated locations. Checks shelves for misplaced books, corrects shelving, removes volumes which appear to be in poor physical condition so that an employee in a higher grade may consider them for withdrawal or rebinding. As required, charges or discharges books.

(2) Assists at the circulation desk of a general (public) library by charging publications to users who are properly identified, discharging library materials on return, assembling and verifying records of overdue books, and preparing notices to be sent to the borrowers.

(3) Follows established routines in sorting, aphabetizing, or arranging catalog and shelf-list cards. In sorting, must apply the alphabetical and numerical designations of the Dewey and Library of Congress classification schemes. Types or otherwise completes sets of catalog and shelf-list cards from fully-prepared master copy. Posts the locally-approved call numbers to pre-printed L. C. catalog cards. Stamps and arranges numerically and/or alphabetically cards which have been withdrawn from catalog or shelf list.

(4) Applies designated symbols on book splines, using stylus or lettering machine; posts call numbers and retail prices inside the books; with a stylus, marks ownership of phonograph records; and/or posts subscription records when periodicals are received, prepares them for distribution to divisions or using activities, and reports missing issues or damaged copies to the supervisor.

GS-1411-3 Library Aid GS-3 GS-1411-3

GS-3 Library Aid positions involve use of a working knowledge and understanding of the library's services, practices, and

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procedures relating to the specific function(s) or activities involved. These knowledges typically are gained through instructions on the job. Previous library experience may be desirable, but is not required. Some GS-3 positions provide the means for receiving training in or familiarity with the use of specialized terminology, or in recognizing the identification of books or other documents written in foreign languages.

Assignments

GS-3 assignments include detailed clerical or manual library routines of limited complexity. Such duties typically (*a*) are assigned on a continuing basis; (*b*) relate to a functional area of library activity; (*c*) are covered by a variety of well-established procedures and instructions which, in most cases, are directly applicable; and (*d*) require the exercise of some discretion or choice in the application of pertinent guidelines to the situation at hand.

GS-3 assignments require an understanding of the library's basic purpose as well as a working knowledge of library services and practices relating to the specific work activity. For example, assignments require incumbents to utilize some knowledge of: (*a*) the library's classification scheme, shelf-listing arrangements, and location of specialized collections; (*b*) the location and filing schemes for major and/or special catalogs; (*c*) a limited number of reference sources; or (*d*) a variety of methods and clerical procedures relating to the procurement or technical processing of library materials, registration and circulation routines, etc.

GS-3 assignments typically do *not* require familiarity with specialized subject-matter terminology, or ability to read identifying information on foreign language publications. However, some GS-3 assignments may include *training* or experience in recognizing subdivisions and distinctions in subject terminology; in recognizing identifying information in foreign languages, such as the words for names, volumes, dates, parts, editions, etc.; or in transliterating titles from foreign alphabets.

Personal contacts

Some Library Aids GS-3 have personal contacts with other library employees, agency personnel, the general public, or others using the library. The Library Aid GS-3 must have the tact, courtesy, poise, alertness, and good judgment sufficient to carry on public contacts of a relatively routine, factually-centered nature.

At this level, the Library Aid is concerned with giving or receiving information which is routine and recurrent, simple and clear-cut. By contrast with the GS-2 level, the GS-3 Library Aid (*a*) usually gives some explanation of the governing clerical procedures, or (*b*) answers a variety of inquiries. More difficult questions or problem situations are referred to personnel in higher grades.

Level of responsibility

GS-3 Library Aids are responsible for making routine decisions in applying established library policies, rules and instructions. Positions exceed the GS-2 level in that there are some opportunities for the use of discretion. For example, some choice may be required in correctly applying procedures under varying circumstances (such as different situations that arise at a registration or circulation desk); and in recognizing and referring to the supervisor or personnel in higher grades such matters as deviations from established procedures, matters not covered in procedures or instructions, or instances in which normal or usual methods cannot be used.

Work is performed under supervision of a Librarian or Supervisory Library Technician or higher-grade employee in the organization. The Library Aid receives standing instructions on sequencing and planning of work for routine, repetitive chores where work is controlled by procedures and established practices. Instructions for unusual or new assignments are given on a task basis. Routine work is spot checked. New, unusual, or more difficult assignments are inspected, reviewed, or revised by the supervisor or an employee in a higher grade. More complex library routines of GS-4 level assigned for training purposes are performed under close supervision.

Examples

GS-3 Library Aid positions normally include the performance of one or more of the duties described below. These are illustrative and not all-inclusive.

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(1) Based upon call number, is responsible for searching, shelving, shifting, shelf reading and sorting library publications in a large library with extensive specialized collections. May be assigned within a specified area. Using written requests in various forms, locates required publications primarily based upon the call number; checks to make sure it includes the article requested. Performs searches for publications in immediate vicinity of its proper location. Substitutes other editions when material requested is not on the shelf. Checks shelves in his assigned area. Brings to attention of supervisor possible typing or clerical errors in labeling, or library materials needing mending or reconditioning.

(2) Performs circulation or registration duties, or both. Must apply a knowledge of the library's rules and procedures for circulation, registration, and care of library materials. For example: (*a*) explains to borrowers the library's rules and regulations, registers borrowers, files applications, enters and clears records of overdue books or fine charges, records change of name or address, etc.; (*b*) explains circulation procedures, charges publications to users (questioning in doubtful cases the borrower's address or identity as indicated on card), discharges library materials on return, inspecting books for damage, reserving books at request of borrower and making checks to see that requests for specific items are filled; (*c*) maintains records of material being loaned to other libraries, follows established procedures as to the proper loan period based on various types of material, identifies the various items being loaned to make sure that materials are obviously consistent with request, keeps current records of overdue books, prepares and sends notices to borrowers to recall books or periodicals which are overdue. Nonroutine cases are referred to an employee in a higher grade. Must use discretion, tact, and resourcefulness in answering borrowers' questions on registration or circulation procedures, issuing replacements for lost borrowers' cards, giving directional information, etc.

(3) In accordance with instructions, prepares a variety of library materials, applying procedures and instructions pertinent to the piece in hand (books, pamphlets, music,

recordings, films, microfilms, magnetic tape, etc.). For example: On a continuing basis, performs a variety of detailed library duties in processing (with book cards, pockets, stamps, and appropriate markings) new acquisitions, reinstatements, reclassified titles, transfers, and rebound materials for reference and circulation use. Upon instructions of supervisor and using some knowledge of formats and bindings, makes a preliminary separation of books to be reconditioned; receives books bound on contract, checks against bindery invoices, and processes them.

(4) In a library that has a few nonprofessional positions, a Library Aid GS-3 performs a variety of library routines of limited complexity covered by well-established procedures and instructions, e.g., shelf maintenance, registration and circulation duties, applying a variety of accessioning procedures, processing new acquisitions, etc.

GS-1411-4 Library Technician GS-4 GS-1411-4

GS-4 Library Technician positions involve use of a specialized working knowledge of the particular library's services, practices and procedures and/or some familiarity with the terminology, content, and classification scheme of the collections serviced. Some GS-4 positions also require ability to recognize identifying information on documents in one or several foreign languages. These specialized knowledges typically have been gained through previous experience or training in the same or a closely related library activity, or in specialized training courses.

Assignments

Performance of one or more of the following types of duties is typical of GS-4 level assignments:

1. Peforming a variety of detailed, nonroutine, or more complex clerical or nonprofessional library duties following prescribed or standardized methods or instructions. These duties include a variety of steps or operations, with various alternative courses of action where choices must be made and judgment exercised. They require the use of initiative and judgment in applying a

substantial number of pertinent regulations, procedures, and instructions. For example, assignments require application of: (*a*) some knowledge of cataloging practices and established rules for form and content of bibliographic entries; (*b*) some knowledge of routine reference sources in the library in which employed and how to use them; (*c*) some knowledge of acquisition sources such as trade journals, exchange programs, government channels, etc.; (*d*) a good working knowledge of rules and procedures such as detailed internal library rules and instructions for filing, etc.

2. Performing a sequence of detailed clerical or nonprofessional library routines such as coding, searching for, recording, or filing materials, which require: (*a*) sufficient familiarity with the terminology, content and classification scheme of the collections serviced to recognize principal and subordinate relationships among a number of related technical, scientific, or specialized topics; and/or (*b*) some training in the clerical processing of foreign publications and ability to recognize and compare dates, authors, titles, etc., in identifying books or other documents in one or several foreign languages, or to transliterate from foreign alphabets into English.

Personal contacts

Personal contacts of the GS-4 level require that the Library Technician utilize some understanding and appreciation of the philosophy of library service; tact, courtesy, alertness and good judgment in responding to the needs of people using the library. Some Library Technicians GS-4 require ability to work with and guide the efforts of special library personnel, such as volunteer workers, hospital patients who serve as helpers, etc.

Personal contacts exceed GS-3 requirements in that they typically deal with a considerable variety of clerical, procedural, or factual matters with some independence; they require considerable skill in sensing the meaning and intent of requests and in explaining procedures and requirements; they may involve some discretion and judgment in determining what information to give according to the person's need and entitlement to the information requested; they may require some familiarity with the scientific, technical or specialized terminology of the collection serviced.

Personal contacts involving technical reference questions are referred to Librarians or other personnel in a higher grade for reply.

Level of responsibility

The Library Technician GS-4 must apply established library policies, rules and instructions that are more numerous and detailed than those characteristic of the GS-3 level. The Library Technician has responsibility for knowing the established library routines, and for carrying through the full cycle of numerous clerical and nonprofessional tasks. The Library Technician must use resourcefulness and experienced judgment in making decisions when there are alternate courses of action within applicable procedures and requirements, and in explaining or determining the applicability of guides or procedures of a general nature.

GS-4 Library Technicians work under supervision of a Librarian or Supervisory Library Technician. They are responsible for working within established procedures and operating instructions and for making related decisions subject to supervisory approval. Recurring routine assignments are performed on the basis of previous experience. Unusual or difficult problems are referred to the supervisor. Work is reviewed periodically to insure compliance with procedures and quality standards. Nonroutine assignments are reviewed.

Supervisory control is significantly closer and more complete for in-service training assignments. Under such conditions, the Library Technician performs assignments similar to those described at the GS-5 level with explicit instructions as to the methods and procedures to follow, and the work is reviewed in process.

Examples

GS-4 Library Technician positions include the performance of one or more of the duties described below. These are illustrative and not all-inclusive.

(1) Identifies foreign language serial publications requiring the ability to recognize authors, dates, titles, editions, etc., in several foreign languages, the use of standard language dictionaries and/or the need to transliterate from foreign

alphabets into English. Performs such duties as maintaining records of foreign language serial publications, determining whether issues are missing and, if so, submitting claims based on knowledge of various circulation patterns and library procedures. Titles which present unusual problems or are difficult to locate or identify are referred to personnel in a higher grade for additional searching.

(2) Processes duplicate nonfiction and adult fiction titles which are being added, reclassified, or reinstated. Searches official catalog and union shelf list for each book, checking carefully such points as author, title, edition, date, pagination, etc., to ascertain whether books are exact duplicates. Performance of these duties requires knowledge of the library's cataloging practices and established rules for form and content of bibliographic entries.

(3) Is responsible for the shelf maintenance of a special collection, such as science and technology, law, music, rare books, maps, etc. The classification scheme used may be unique to the particular collection, and may be geographical, chronological, numerical, or a combination of these arranged to fit the peculiar needs of the collection serviced. Searches for books or other library items based on call slips giving author, title and shelf location. Difficulties in locating documents stem from such conditions as (*a*) information on the request may be inaccurate or incomplete; (*b*) some familiarity with the terminology covered by the specialized collection is needed to identify and to verify material through use of catalogs, shelf lists, etc.; or (*c*) need to recognize and identify titles, dates, authors, etc., in one or several foreign languages.

(4) Performs duties similar to circulation desk GS-3, but on a more specialized level. Maintains a detailed system of circulation controls, such as reserves, renewals, overdues and interlibrary loans. Based on experience in applying established circulation procedures and practices, processes for the library problems in registration, overdues, circulation, or loan of materials (e.g., makes adjustments with the borrowers in case of non-return of or damage to library materials). Receives, recalls, returns and otherwise serv-

ices the material borrowed from other libraries. Arranges by direct contact with lending libraries for extension of loan periods and for replacement of lost or damaged items.

GS-1411-5 Library Technician GS-5 GS-1411-5

GS-5 Library Technician positions involve use of a significant specialized knowledge of (*a*) the particular library's functions, services, practices, and procedures; (*b*) the terminology, content, and classification scheme of the library's collection, or a specialized collection; (*c*) or both. In some work situations, GS-5 positions require ability to read routine or repetitive material in one or two foreign languages (such as requests for publications), or to recognize identifying information on documents in a variety of foreign languages. These knowledges typically have been gained through previous experience in the same or a related activity, or in related training courses.

Assignment

GS-5 assignments typically include one or more of the following types of duties:

1. Performing *technical* or *quasi-professional* library operations of limited scope or difficulty in one or more of the functional areas of librarian work. Duties include the uncomplicated or routine segments of more difficult professional-type operations (e.g., brief, temporary or preliminary cataloging). Performance of such duties requires a specialized knowledge and understanding of techniques used in one or more of the basic functions of library work (such as acquisition, cataloging, reference work); application of established methods and practices; the use of standard library tools (such as the *ALA Cataloging Rules for Author and Title Entries; Rules for Descriptive Cataloging*), or agency-generated manuals and instructions; and routine use of readily available reference sources in the library in which employed.

2. Performing a varying sequence of complex *clerical or nonprofessional* library routines that are not completely standardized or prescribed; or that involve deviations from established procedures, new or changing situations or conditions; or that involve matters for which only general provision can be made in regula-

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tions or procedures. Such assignments require the use of considerable initiative and judgment in the application of a substantial variety of established library regulations, procedures, and instructions; or the use of a variety of standard references, guides, and precedents to obtain needed information and to select and adapt methods and procedures.

3. Performing a varying sequence of other *clerical or nonprofessional* tasks (such as coding, searching for, recording, or filing library materials) which require: (*a*) sufficient familiarity with technical, scientific, or specialized terminology in various principal subject-matter areas and/or sufficient comprehension of nontechnical material to distinguish relationships among a wide variety of closely interrelated matters; and/or (*b*) ability to identify books or other documents in a variety of foreign languages, or to translate into English from one or two foreign languages material which is repetitive or routine in content or format. Such duties require familiarity with common reference materials used in translation, but not a full knowledge of the languages which are being translated.

4. Serving as the responsible employee in charge of *nonprofessional or clerical* segments of work, including work of the GS-4 level of difficulty, requiring a good overall knowledge of a nonprofessional activity in a large library, or the operating procedures of a small library. Such assignments may also include responsibility for suggesting new or improved work routines, or for training, scheduling, or other limited supervision of the work of lower-grade assistants. (TO EVALUATE SUPERVISORY POSITIONS, USE PART I OF THE SUPERVISORY GRADE-EVALUATION GUIDE.)

Personal contacts

In addition to requirements specified at GS-4, personal contacts at the GS-5 level require considerable knowledge of the library's organization, services, facilities, and classification system and procedures. Some Library Technicians GS-5 deal with clientele of the library in providing limited ready-reference service, or in explaining a variety of detailed library rules and regulations. Other Library Technicians GS-5 have limited contacts with dealers, donors, and exchange sources relating to the procurement or acquisition of materials.

Level of responsibility

Library Technicians GS-5 work within a framework of established library policies, rules and regulations. They must apply considerable judgment in the application of numerous operating instructions, procedures and precedent decisions. Work is performed under supervision of a Librarian or Supervisory Library Technician. Detailed instructions are furnished where assignments are unique and require marked changes in established procedures. The supervisor discusses areas of work where special emphasis is needed, gives suggestions on handling more difficult assignments, and is available to answer any questions which may arise.

When performing *technical or quasi-professional* work (e.g., concerned with acquisition, cataloging, or reference techniques), GS-5 Library Technicians follow clear guides and established practices; there are few opportunities for use of originality; decisions made or actions taken deal recurrently with similar situations or problems. The work is subject to review and revision, e.g., cataloging is typically reviewed for conformity to library practices; reference material requested by users may be subject to spot-check review.

When responsible for more complex *clerical or nonprofessional* library routines, work is reviewed primarily for overall effectiveness and compliance with general policies and procedures. Work typically flows to the Library Technician GS-5 according to an established procedure. Unusual matters requiring professional or quasi-professional experience to resolve are referred to personnel in a higher grade level.

Examples

GS-5 Library Technician positions normally include the performance of one or more of the duties described below. These are illustrative and not all-inclusive.

(1) From established sources, prepares bibliographic entries for material to be acquired. Verifies bibliographic data on duplicate orders, readers' requests, out-of-print books, etc. Uses resourcefulness in searching trade journals, catalogs, and reference tools to locate correct bibliographic and order information. When the information cannot be found,

consults with or refers the material in question to a Librarian or Library Technician in a higher grade.

(2) Is responsible for maintaining serial checklist which includes the following duties: (*a*) recording and identifying a large volume of publications with a wide range of subject matter, formats, and foreign languages; (*b*) searching decision files, order records, and standard bibliographic works for titles which checkers in lower grade have been unable to find. Only those titles which then are not found will be routed to personnel in a higher grade for further searching as possible new serial titles.

(3) Performs cataloging, either temporary or preliminary, and original cataloging in brief form. This includes adapting Library of Congress printed cards by making notations specific to the needs of the library; cataloging new editions and new volumes of works already in the library requiring careful comparison of the information contained in the book and on the cards already in the catalog. Where cataloging or classification is other than routine, refers cases to a Librarian.

(4) Aids individuals in the use of the library resources by locating materials, including books, reports, Congressional hearings, and other documents. This involves not only giving assistance in the actual physical location of materials, but also involves the location of information through the use of the author-subject-title card catalogs and indexes. This also includes locating and selecting appropriate materials to answer ready-reference questions. More difficult reference questions are referred to the Librarian.

GS-1411-6 Library Technician GS-6 GS-1411-6

GS-6 Library Technician positions, in addition to the knowledges required at lower levels, involve (1) application of a knowledge of technical or quasi-professional operations in one or more of the basic elements of library science (such as acquisition, cataloging, reference, administration), and of the objectives and philosophy of library service; and (2) ability to apply such knowledge to the service needs of the particular library situation.

Assignments

Continuing assignments at the GS-6 level include relatively narrow segments of work in one or more of the functional areas of librarianship (such as acquisition, cataloging, and reference) to provide technical support and relieve the professional librarian for higher level and more demanding responsibilities. Such assignments are controlled in terms of variety, complexity, or responsibility. An example is the performance of simplified cataloging for a specific group of library materials. Performance of GS-6 duties requires (*a*) skill and understanding of established library techniques and methods and the use of standard library tools within the library in which employed; and (*b*) knowledge of a specialized technical or quasi-professional area of library work, e.g., cataloging practices of the library in which employed to locate variations in forms of author's name, spelling, edition, imprint, etc.

Personal contacts

In addition to requirements for GS-5, Library Technician positions at the GS-6 level involve more demanding or extensive personal contacts. Such contacts require application of knowledges and experience gained in the particular functional area. For example, in the acquisition of materials, they meet with dealers and donors who come to the library; they speak for the library when serving as the individual-in-charge of library operations on a second shift; or, on the basis of guidance from supervisor (as a member of a panel or a group), they give book talks or other presentations to interested library groups.

Level of responsibility

Library Technicians GS-6 follow established library techniques and methods, and the use of standard tools and guidelines. For continuing assignments, the level of responsibility differs from that described at the GS-5 level primarily in the nature of the assignment. GS-6 assignments typically involve more technical or quasi-professional operations in support of the professional librarian, as reflected by the examples that follow.

When performing continuing quasi-professional or technical assignments, the GS-6 Library Technician works under the general technical supervision of a Librarian or Supervisory Library

Technician. The employee typically receives only general guidance upon assignment of work, and is expected to perform ordinary workload independently; difficult problems are referred to the supervisor for advice or action; and completed work is subject to review for technical accuracy.

When applying and adapting pertinent guidelines to more varied and complex technical or quasi-professional situations than those represented by the examples below, Library Technicians GS-6 work under close control and guidance of a Librarian or higher-grade Library Technician.

Examples

GS-6 Library Technician positions normally include one or more of the duties described below. These are illustrative and not all-inclusive.

(1) Performs bibliographic searching on the basis of incomplete information. The requests lack information for easy identification. They may be inadequate, inaccurate, illegible, or in a form at variance with the cataloging practices of the library; or they may relate to old, rare, or obscure items. Problems include a range of such matters as:

- (a) errors or variations in spelling and in the form of the author's name;
- (b) variations in entry;
- (c) proper author entry—whether corporate author or personal author;
- (d) discrepancies in main headings; and
- (e) translation of identifying data from foreign languages.

Duties require extensive searching in the library's indexes and catalogs, and examining books and periodicals to verify author, complete title, edition, publisher, and other specific information. Only those items for which adequate bibliographic identification is not located are subject to review. These duties require an intensive knowledge of the library's holdings, and a good understanding of bibliographic searching technique.

(2) Performs descriptive cataloging of specific library materials. Is assigned materials easy to catalog, e.g., where the authorship and physical description do not present difficult problems and where extensive searching is not required. May be assigned, for development purposes, a greater variety and complexity of library materials which are more difficult to catalog, e.g., where authorship is not obvious and involves some choice, or where searching is required to determine form of entry and physical description. Cataloging duties involving varied, complex and difficult materials are performed under close supervision and guidance of a Librarian.

(3) On the second shift, serves as the employee-in-charge of a small library or bookmobile, providing ready-reference service when the collection includes fiction, general reference, and books and magazines on current affairs. The Library Technician GS-6 primarily aids individuals in the use of the library, answers ready-reference questions by brief consultation of standard reference books in the library, and locates books or other information media through use of the library's card catalogs. Work is performed under the general technical supervision of a higher-grade Librarian or Library Technician on the regular shift, who is responsible for administration of the library, public relations, and more difficult reference work. Such an assignment may also involve direction of one or two lower-grade employees who perform registration, circulation, filing and searching duties.

GS-1411-7 Library Technician GS-7 [1] GS-1411-7

GS-7 Library Technician positions involve use of a substantial specialized knowledge of (*a*) the library's functions, services, practices, and procedures; (*b*) the terminology, content, and classification scheme of the library's specialized collections; (*c*) or both. Included are requirements for substantial technical or quasi-professional knowledges of one or more of the basic elements of library science (such as administration, acquisition, cataloging, reference). Some positions also require ability to read, in two or more foreign languages, nontechnical or repetitive material, or material involving familiarity with subject-matter terminology.

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[1] While the duties of a Library Technician GS-7 may appear to be similar to those of a Librarian GS-7, one distinction to be made is this: The Library Technician GS-7 possesses a store of knowledge related to the functions, services, practices, and procedures of *the* library or special type of library *in which employed*. The Librarian GS-7, on the other hand, possesses a professional knowledge of the fundamentals of library science, and of the principles, theories, and techniques which are applicable in *any* type of library.

Assignments

GS-7 assignments typically include technical or quasi-professional operations of considerable difficulty in one or more of the functional areas of librarianship. For example:

1. Performing a cycle of technical or quasi-professional assignments of substantial variety or complexity (e.g., searches for hard-to-find bibliographic information, and, on the basis of this information, prepares bibliographies that fully describe and identify items to be acquired; performs descriptive cataloging following standardized practices; locates and selects appropriate materials to answer ready-reference or selective reference questions in a specific area of interest). Performance of such duties requires (*a*) a background of understanding, demonstrated skill, and considerable judgment in the application and interpretation of well-established library techniques and methods, and the use of standard library tools and available reference sources *within the library in which employed;* and (*b*) substantial knowledge of a specialized area such as bibliographic references; the book trade, procurement sources, and trade journals; and/or the library's technical processing and bindery policies and activities.

2. Searching for, locating, and acquiring data or documents for the use of specialized clientele (e.g., scientists and engineers). Normally, the requested data or documents are available from collections or resources within the library in which employed. Such work requires (*a*) substantial knowledge of detailed library work processes for input and output of data in a specialized collection, including in some cases use of automated equipment; (*b*) ability to select or

establish methods and procedures for acquiring data for unique projects; (*c*) a substantial working knowledge of the terminology, content, and classification scheme of one or several specialized collections sufficient to understand standard methods, procedures or techniques for conducting literature searches for requested data; and/or (*d*) ability to read or translate nontechnical or repetitive material involving some familiarity with subject-matter terminology, in two or more foreign languages.

Personal contacts

The Library Technician GS-7, engaged in personal contacts, must utilize the substantial and specialized working knowledges required at this level in obtaining, providing, and exchanging information. Library Technicians GS-7, for example, establish and maintain cooperative working relationships within the library and with library clientele; give book talks or other presentations to interested groups; or work closely with dealers, donors, and exchange sources in the acquisition of materials.

Level of responsibility

Technical or quasi-professional work at the GS-7 level, as at lower grade levels, follows established library techniques and methods, and the use of standard tools and guidelines. At the GS-7 level, however, the Library Technician must use initiative in applying and adapting these guidelines to the specific situation at hand. They make decisions requiring the use of experienced judgment in their assigned area, e.g., where to search for hard-to-find bibliographic information, as well as the practical consideration of when it must end.

Technical or quasi-professional work is performed under the general technical supervision of a Supervisory Library Technician, or a Librarian who is located either within the local library or at a higher organizational level. The Library Technician GS-7 typically works on the basis of a general assignment of responsibilities, and follows through the full continuity of the job to the final results. He must be able to recognize nonroutine situations, and refer to the supervisor more difficult problems or ones which might involve a change in library policy. Depending upon the assignment, completed work may be reviewed for technical accuracy, e.g., cataloging is reviewed for consistency of form and entries; or reports of search are reviewed to see that no aspect of a request has been overlooked. Typically, however, more routine or repetitive requests for information are not reviewed, and results of searches are accepted as final and form the basis for information given to the requestor.

Examples

GS-7 Library Technician positions include the performance of one or more of the duties described below. These are illustrative and not all-inclusive.

(1) Responsible for operation of a small branch, bookmobile, or hospital library where the subject area is relatively narrow or nontechnical. Acquisition and cataloging of library materials is performed by a centralized service. The work performed requires an extensive knowledge of the library's resources and substantial responsibility for a range of the library's activities and services, including ready reference, circulation, administration, publicity, and public relations. Work is performed under general supervision of a librarian who establishes policies and procedures, provides guidance on professional aspects of the work, and who may review library operations and problems on a weekly or biweekly basis.

(2) Under general supervision of a librarian, provides acquisition services for a library of significant size or group of libraries. Has responsibility for correct bibliographic information and order data on all out-going orders. Must search catalogs, bibliographies, and trade journals for hard-to-find data not located by lower grade library technicians. Following established policies and practices of the library, makes recommendations concerning such matters as acceptance of gifts for addition to the collection; need for acquisition of duplicate copies, variant editions; sources for procurement. Must have a sound technical knowledge of standard bibliographic reference tools used in the library; and the library's procurement policies and procedures.

(3) Under general supervision of a librarian, performs descriptive cataloging. Material includes scientific and engineering publications, which may be in foreign languages. Work sometimes requires unusual descriptive entries and extensive searching of the library's catalogs and bibliographies to establish consistency of author entries, correct dates, and necessary notations of information. Consults with supervisor on especially difficult problems. All work is reviewed for consistency of form and entries. Performance of these duties requires a detailed knowledge of standard cataloging rules, and established procedures and practices, especially as related to the library in which employed.

(4) In a large national library, performs difficult searching duties typically on the basis of correspondence and telephone requests and for items not located by lower-grade searchers. Typical problems not only involve incomplete or incorrect information such as author doubtful due to possible corporate author, fragmentary title given, discrepancies in main heading, or garbled issuing body, but also are complicated by such characteristics as technical reports of unknown authorship, item identified by manuscript number, second source quoted, unusual material requested, original requested by transliterated title, translation wanted rather than original, etc. Searching requires an extensive knowledge of the library's resources and classification scheme, a sound knowledge of cataloging rules and standard reference and bibliographic tools of the library. Searches are conducted for all types of library materials, to ascertain the existence of an item, and to locate correct bibliographic information. Works independently in conducting searches. Results are accepted as final and form the basis for information given to the requestor. Report of search may be reviewed to insure that no aspect has been overlooked, that all possible places have been searched, and that appropriate reference and bibliographic sources have been consulted.

GS-1411 LIBRARY TECHNICIAN SERIES

Grade Level	Assignments	Personal Contacts	Level of Responsibility
1	No previous experience. Tasks are simple, routine with repetitive applications of a few specific instructions. Guidelines are clearly applicable and limited in number. Requires strict adherence to governing instructions.	Few or no personal contacts are made outside the immediate organization in which employed.	Applies specific instructions. Little responsibility beyond accuracy, production and safety procedures for protection of materials. Work under close supervision; work is spot checked for accuracy and neatness; trainee assignments reviewed for accuracy.
2	Simple, uncomplicated and repetitive clerical or manual library routines, requiring application of a limited variety of procedures and specific guidelines. Provide training in and experience with library operations; some acquaintance with library organization and services. May be continuing assignments or provide training for higher level work.	Requires limited personal contact with general public or library clientele, to provide routine, readily available, uncomplicated information. Do not include significant contacts outside immediate organization in which employed.	Apply governing provisions in accordance with instructions; little ingenuity or judgment required. Work under close supervision of a Librarian or Supervisory Library Technician of higher grade, or in accordance with detailed instructions.
3	Detailed clerical or manual routines of limited complexity. Duties assigned on a continuing basis; relate to a functional area of library activity; covered by variety of well-established procedures and instructions directly applicable; and require the exercise of some discretion or choice in application of pertinent guidelines to	Have contact with other library employees, agency personnel, general public or other clientele. Requires tact, courtesy, poise, alertness and good judgment. Gives or receives information of routine, recurrent, simple and clear-cut nature. Usually gives some explanation of governing clerical procedure or answers variety of inquiries. Refers	Makes routine decisions in applying established library policies, rules, and instructions; some opportunites for use of discretion. Performs under supervision of a Librarian or Supervisory Library Technician or higher grade employee. Receives standing instructions or supervising and planning of work for routine, repetitive chores. Instructions for unusual or new assignments are given on a task basis.

	situation. Require understanding of library programs and working knowledge of library services and practices relating to specific work activity. Do not require familiarity with specialized subject matter terminology or ability to read identifying information or foreign language publications; may include training in limited aspects of these.	Refers difficult ones to personnel in higher grades.	Routine work is spot checked. More complex routines assigned for training purposes are performed under close supervision.
4	Variety of detailed, non-routine, or more complex clerical or non-professional library duties following prescribed or standardized methods or instructions. Choices of steps and operations must be made and judgment exercised; initiative and judgment in applying regulations, procedures and instructions. Performs sequence of detailed clerical or non-professional library routines such as coding, searching for, recording or filing materials requiring sufficient familiarity with collection to recognize principal and subordinate relationships among a number of specialized topics and/or some training in clerical processing of foreign publications and ability to recognize elements of bibliographic citations in identifying items in one or several foreign languages, or to transliterate	Utilize understanding and appreciation of the philosphy of library service, requiring tact, courtesy, alertness and good judgment in responding to user's needs. Ability to guide work of volunteer workers, etc. Considerable variety of clerical procedural or factual matters with some independence; skill in sensing meaning and intent of requests and explaining procedures and requirements; some discretion in what information to give; may acquire familiarity with sci-tech, or specialized terminology of collection serviced. Technical reference questions are referred to Librarian or other personnel in higher grade.	Applies established policies, rules, and instructions more detailed and more numerous than in GS-3. Knows established routines, carries through full cycle of numerous clerical and nonprofessional tasks. Uses resourcefulness and experienced judgment in choice of alternatives, and in explaining or determining applicability of guides or procedures of a general nature. Works under supervision of Librarian or Supervisory Library Technician. Works within established procedures and operating instructions. Performs recurring routine assignments. Unusual or difficult problems are referred to supervisor. Work reviewed periodically for compliance with procedures and quality standards. Non-routine assignments are reviewed. Supervisory control is closer for in-service training assignments.

	alphabets to English.		
5	Performs technical or quasi-professional operations of limited scope or difficulty in one or more functional areas. Uncomplicated or routine segments of professional type operations, requiring specialized knowledge and understanding of techniques; use of standard library tools; application of established methods and practices; and routine use of readily available reference sources in library in which employed. Performs series of complex clerical or non-professional non-standardized routines. Use considerable initiative and judgment in application of established regulations, procedures and instructions, or use of variety of standard references and guides to obtain needed information. Perform varying sequence of other clerical or non-professional tasks requiring familiarity with specialized terminology in principal subject areas to distinguish relationships among a wide variety of closely interrelated matters and/or ability to identify materials in variety of foreign languages or translate into English routine or repetitive materials from one or two foreign languages. Requires familiarity with common material used in translation, but not full knowledge of languages.	Requires considerable knowledge of library's organization, services, facilities, and classification system and procedures. Limited ready reference service. Limited contacts with dealers, donors, and exchange sources relating to acquisition of materials.	Works within a framework of established library policies, rules and regulations, applying considerable judgment in application of numerous operating instructions and procedures. Works under supervision of Librarian or Supervisory Library Technician. Detailed instructions are furnished for unique assignments. Follows clear guides and established procedures; few opportunites for originality. Work is subject to review and revision. More complex clerical or non-professional library routines reviewed for effectiveness and compliance with general policies and procedures.

	In charge of non-professional or clerical segments of work, requiring overall knowledge of a non-professional activity in a large library or operating procedures in a small library.		
6	Relatively narrow segments of work in one or more functional areas to relieve professional librarian for higher level and more demanding responsibilities. Requires skill and understanding of established library techniques and methods and use of standard tools within the library employed and knowledge of a specialized technical or quasi-professional area of library work.	Involve more demanding or extensive personal contacts, requiring application of knowledge and experience gained in particular functional area.	Follows established library techniques and methods and use of standard tools and guideline. Involve more technical or quasi-professional operations in support of the professional librarian. Works under general technical supervision of a Librarian or Supervisory Library Technician. Receives only general guidance, expected to perform ordinary workload independently, difficult problems referred to supervisor. Work reviewed for technical accuracy. In more varied and complex situations works under close control and guidance of supervisor.
7	While the duties of a Library Technician GS-7 may appear to be similar to those of a Librarian GS-7, one distinction to be made is this: The Library Technician GS-7 possesses a store of knowledge related to the functios, services, practices, and procedures of the library or special type of library in which employed. The Librarian GS-7, on the other hand, possesses a professional knowledge of the fundamentals of library science, and of the principles, theories, and techniques which are applicable in any type of library.		
	Substantial specialized knowledge of library's functions, services, practices, and procedures; the terminology, intent and classification scheme of specialized collections. Substantial technical or quasi-	Utilizes substantial and specialized working knowledge in obtaining, providing, and exchanging information. Establish and maintain cooperative and working relationships within library and with library clientele; give	Follows established library techniques and methods; uses standard tools and guidelines. Must use initiative in applying guidelines. Make decisions requiring use of experienced judgment in assigned area.

professional knowledge of one or more basic elements of library science. Some require ability to read non-technical or repetitive material in two or more foreign languages. Performs cycle of technical or quasi-professional assignments of substantial variety or complexity. Searches for material for specialized clientele within library in which employed. May involve use of automated equipment.	presentations to interested groups; works closely with dealers, donors, and exchange sources in acquisition of materials.	Works under technical supervision of a Supervisory Library Technician or a librarian located in local library or at higher organizational level. Works on basis of general assignment of responsibilities and follows through to completion. Refers to supervisor more difficult problems or ones which involve change in policy. Completed work may be reviewed for technical accuracy. Routine and repetitive requests are not reviewed; results are accepted as final and form basis of information given to requester.

Classification Standards
(Examples)

1411

GS-1

Shelving and Maintenance of Collections

- Shelving materials in accordance with a simple predetermined alphabetical or numerical arrangement
- Maintaining orderliness and arrangement of shelves
- Assisting in weeding files

Technical Procedure

- Counting duplicates in shipments
- Stamping books
- Adding book cards and pockets, and physical preparation of books

Other

- Collating, assembling and stapling booklists, bibliographies, etc.
- Photocopying of materials, reproducing microfiche on request

GS-2

Shelving and Maintenance of Collections

- Shelving, in accordance with an alphanumeric code arrangement (i.e. call number)
- Files pamphlet and vertical file material
- Corrects shelving
- Checks for material in bad physical condition

Technical Procedure

- Sorting, alphabetizing or arranging catalog and shelf-list cards

- Types cards from master copy
- Posts call numbers to LC cards
- Stamps withdrawn cards
- Letter books
- Posts call numbers and prices in books
- Posts subscription records
- Prepares journals for distribution
- Reports missing journal issues

Circulation

- Assists at Circulation desk, charging, discharging, checking overdues, and assisting sending notices to borrowers.

GS-3

Shelving and Maintenance of Collections

- Searches by call number for material on shelves
- Shelves, reads shelves, shifts and sorts publications
- Searches for misfiled material
- Brings to supervisors attention the need for relabeling, rebinding, repairing or replacement

Technical Procedure

- Processing new acquisitions, reinstatements, transfers, rebinds, etc.
- Processing special types of materials (pamphlets, microforms, tapes, etc.) according to specific instructions
- Makes preliminary selection of material for binding
- Checks returned bindery items against invoices, processes materials for shelving, maintains records

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Circulation

- Explains library rules, regulations and procedures to borrowers
- Registers borrowers and verifies identity
- Performs circulation duties, charging, and discharging
- Maintains and clears records of overdue books and fine charges; sends notices to borrowers
- Reserves books at request of borrowers and checks accuracy of material pulled.
- Maintains records of material loaned to other libraries

Other

- Identifies, bibliographically, and reproduces material by photocopying an microform reproduction

GS-4

Shelving and Maintenance of Collections

- Responsible for shelf maintenance of a special collection, with possibly a unique classification
- Searches for materials based on call slips giving full identification of the material requested
- Use catalogs shelf lists, etc. to locate necessary complete information for identifying material requested
- Need to recognize identify and locate material in one or several foreign languages

Technical Procedure

- Identifies foreign language serial publications, using standard language dictionaries
- Maintains records of foreign language serial publications, and submits claims for missing material
- Processes duplicate materials, by searching catalogs, shelf lists, etc to determine exact data and verification

Circulation

- Maintains detailed system of circulation controls for reserves, renewals, overdues and interlibrary loans

- Handles problems as they arise, for registration, overdues, procedures, non-return or damage of materials

GS-5

Technical Procedure

- Prepares bibliographic entries for orders, and verifies bibliographic data using trade journals, catalogs, reference tools, etc.

- Maintains serial check lists; searches decision lists, order files and reference tools for bibliographic data for ordering new serials

- Performs temporary or preliminary cataloging, and adds to LC cards

- Routine cataloging of added editions, added volumes and duplicates

Reference

- Aids users in identifying and locating material in the library, using subject-title catalogs and indexes

- Locates and selects material to answer simple reference questions

GS-6

Technical Procedure

- Performs bibliographic searching, when information is incomplete for cataloging; requires intensive searching of standard sources

- Performs easy descriptive cateloging

- Performs public services

- In a small library, may serve as employee-in-charge, in absence of Librarian, supervising one or two lower grade employees

- Provides answers to simple reference questions, using standard sources
- Aids user in identifying and locating a wide variety of library materials, using catalogs, indexes, etc.

GS-7

Technical Procedure

- Provides acquisition service for a large library or group of libraries
- Performs descriptive cataloging, under supervision
- Does bibliographic searching for verifying order information
- Makes recommendations on acquisition of duplicates and acceptance of gifts

Public Services

- Responsible for operation of small branch library, receiving acquisition and catologing services from a central location
- Performs simple reference in specialized subject areas
- Performs literature searches in specialized subject areas
- Translates nontechnical material

This series includes positions which are primarily concerned with the direction, administration, development, coordination, or performance of work involved in processing and transmitting scientific, technological, or other specialized information. Duties performed require a broad knowledge of one or more professional, scientific, or technical disciplines or fields of interest sufficient to understand the significance and relationships of the concepts and ideas contained in the information; a *practical* knowledge of documentation or library techniques; and, in some cases, a knowledge of foreign languages.

This series does not include (*a*) positions requiring a professional knowledge of librarianship; or (*b*) positions primarily requiring professional knowledge and competence related to a specific discipline or field of interest, or a full knowledge of the state of the art, which have their career relationships in the subject-matter field.

The technical information specialist provides information services related to interdisciplinary or mission-oriented literature requiring utilization of a broad variety of knowledges gained through education or experience. For example, a position of Technical Information Specialist (Physical Sciences) concerned with indexing mission-oriented literature may require major study in chemistry and/or physics, plus substantial knowledge of one or more other subjects such as mathematics, electronics, geology, metallurgy, meteorology, astronomy, ceramics. The technical information specialist builds upon these broad and varied knowledges and develops an expertise in working with the literature related to his specific fields of interest, and skill in the special techniques, methods and devices of information processing.

Based upon a knowledge of the subjects involved and the literature of the specific field:

(a) Technical information specialists typically serve in a document or information facility which is *not* a library, e.g., a documentation center or clearinghouse for the secondary distribution of technical reports. They are trained on the job, or in specialized training or education courses, in the particular documentation or information retrieval techniques used by the facility. A subject specialist, a librarian, a technical information specialist, or a program manager is responsible for administration of the document or information facility depending upon the needs of the organization.

(b) Some technical information specialists serve as staff members of a library. They are trained on the job, or in specialized training or education courses, to perform specific library routines or techniques (e.g., in subject cataloging, indexing, reference or literature searching). A professional librarian typically is responsible for the library work performed or for the library program.

EXCLUSIONS

Excluded from this series are the following classes of positions:

1. Positions which primarily require professional subject knowledge in depth relating to a specific discipline or field of interest, or a full knowledge of the state of the art. Such positions typically have their career relationships in the subject-matter field and will be classified to the appropriate subject-matter series.

To illustrate, positions are excluded when they require professional subject competence to interpret, evaluate, and elucidate the significance, pertinence, and relevance of specific units of information in the analysis, storage, and retrieval of specialized information (e.g., when there is a continuing requirement for a professional chemist to analyze and interpret the chemical literature; or when the job primarily requires an attorney to conduct legal searching for the purpose of preparing legal opinions).

2. Positions which primarily require a full professional knowledge of the theories, objectives, principles, and techniques of librarianship. See the Librarian Series, GS-1410.

3. Positions sometimes referred to as "information scientists" which are concerned with fundamental areas of scientific investi-

ation leading to better information systems. Illustrations of uch scientific research include, e.g.,

a. research on the analysis and structuring of complex information systems concerned with the interactions between machines, machines and their environments, and with systems comprised of machines, humans, and environments;

b. research on concepts of machine organization concerned with the logic, structure and organization of information processing machines—leading to development of machines that can process non-numerical data, recognize patterns, and classify and act upon information rapidly and automatically;

c. research in adaptive and self-organizing systems to discover machine programs, logic structures, procedures and concepts enabling machines to perform tasks previously regarded as requiring human thought;

d. research in language and linguistics aimed toward better understanding of the properties of spoken and written language as the principal medium for the communication of messages—research to make it possible to build automatic information systems that can "read", abstract, index and retrieve on demand written or spoken text, systems that can translate from one spoken language to another or produce permanent transcripts of spoken language;

e. theoretical research in the information sciences concerned with abstract studies of the nature, organization and structure of knowledge—studies may involve reliability theory, switching theory, self-reproducing machines, formal logic (as distinguished from mathematical logic), computability theory, and certain aspects of analytic and linguistic philosophy.

These scientific investigations are derived from or related to specialized fields such as mathematics, logic, linguistics, psychology, computer technology, operations research, the graphic arts, communications, library science, management, etc. Positions concerned with such scientific investigations will be classified to the appropriate discipline or subject-matter series with which they are *primarily* concerned, i.e., to the Mathematics Series, GS-1520;

the Psychology Series, GS-180; the Operations Research Series, GS-015; the Librarian Series, GS-1410; the Electronics Engineering Series, GS-855, etc.

4. Positions *primarily* requiring a specialized knowledge of computer technology, or other mechanical, electrical, or electronic devices for operation and maintenance of an information system. See the appropriate series in the General Clerical and Administrative Group, GS-300.

5. Positions involving professional archival work, including the assembling, appraising for historical significance, cataloging, classifying, or editing and publishing of historic documents, public records, and exhibits. See the Archivist Series, GS-1420.

6. Positions involving the maintenance of catalogs, furnishing information concerning prices, solicitation of bids and placing of contracts for requested publications or periodicals which *primarily* require a knowledge of purchase regulations, procedures, and basic laws. See the appropriate series relating to the purchasing of items of supply.

7. Positions involving clerical, or other subordinate work which requires a knowledge and understanding of the administrative. clerical, or specialized procedures and operations, routines or techniques peculiar to the collection, organization, storage, searching or retrieval of information media, files or other records (e.g., indexing at the "word level" not requiring professional, scientific or technical knowledge of the subject; or classifying, filing, and searching duties requiring knowledge of established file methods and procedures). See the appropriate clerical or subprofessional series, such as the Mail and File Series, GS-305, or the Library Technician Series, GS-1411.

8. Positions *primarily* requiring a knowledge of public information techniques, ability to utilize communications media, or writing and editing skills. See the Public Information Series, GS-1081; the Writing and Editing Series, GS-1082; and the Technical Writing and Editing Series, GS-1083.

9. Positions *primarily* concerned with making written translations from or into foreign languages where the ultimate objective and main purpose of the job is the production of accurate transla-

tions of written material prepared by others. See the Translator Series, GS-1045.

10. Positions involving administration of agency or departmental programs for technical information systems (including, e.g., creation, technical writing and editing, publication, dissemination, interpretation, and utilization of the information) which are interdisciplinary in nature. They should be classified based upon the *primary* knowledges required and possessed by the incumbent, e.g., (*a*) when subject-matter knowledges are required, the position will be classified to an appropriate subject-matter series, such as the General Physical Science Series, GS-1301; (*b*) when professional knowledge of librarianship is required, the position will be classified to the Librarian Series, GS-1410; (*c*) when knowledge of management is the primary requirement, the position will be classified to an appropriate management series.

INTRODUCTION

A. *The need for technical information services*

1. The dimensions of the problem of exploiting recorded knowledge have been changing. Today, the rapidly expanding research facilities of our Nation, and other nations, are pouring forth a cascade of new knowledge so great that even devoting all of one's waking hours to reading would not make it possible for the student, the educator, the researcher, or the practitioner in any field to keep up with all the reports of interest or pertinence to their work which are appearing in the literature.

2. The various fields of scholarship are becoming increasingly complex and interdisciplinary. Each field impinges upon and draws heavily from other fields, and, to some degree, on every other field of human endeavor. These subjects, as well as the "core" of a particular field are being constantly augmented by new knowledge resulting from the theoretical, experimental, and clinical investigations that are going forward at all times.

In the wide range of subjects that encompass each area of scholarship, the body of knowledge already available must be fully utilized to assure that research is fully productive, that teaching is based on the most modern knowledge, and that practice employs the most modern advances. Superimposed on this need is the need of management, whether in education, research, government, or foundations, for insight into the performance of those they are supporting, as measured against what has been published by others.

3. Scientific thought and activity are not confined to any one country or area. This has implications that are widespread and complicated. Our scientists and technicians, to be abreast of developments in their respective fields, must be aware of what their colleagues in other countries are thinking and doing. They must know in as much detail as possible the exact nature of investigations being conducted in foreign institutions, and they must know it as promptly as possible. Reports, documents, or other information media procured through a worldwide network of field stations, exchange agreements, specialized collection agencies, and international organizations eventually encounter the language barrier. They can serve little practical use until they can be translated or condensed for the use of scientists and technicians who are not fluent in languages other than English.

4. To generalize, the need is for access to knowledge that will provide rapidly, conveniently, economically, and precisely that portion of the literature that will be useful:

— to any individual,

— at any particular time,

— for any particular problem,

— and in any form that is useful to him,

regardless of:

— where and when it was produced,

— in what language it exists,

— how it must be located and processed.

5. No one individual, no one organization, no one agency, no one country can identify or acquire with absolute certainty *all* of the articles, papers, reports, and other communication media that contain useful information. Further, no one individual can read, much less retain in his memory, all of the recorded knowledge that might be of current or future interest.

6. Stated simply, most technical information specialists provide a "reading-analysis-searching service" so they may direct the attention of the seeker of information to that material which is likely to be of interest to him. The technical information specialist reads incoming documents and decides what to record, based both on what his clientele tell him are matters of interest and also on his own prediction of what will be useful for others in the future. As a searcher, he locates material, answers questions, or provides all or portions of documents to the user of the service. In some cases, foreign language proficiency is required to read documents generated in other countries.

B. *Information resources*

Positions in this series may involve work with any of the diverse information resources—formal publication, audio-visual materials, informal publications, unpublished information, intelligence sources.

Positions may be concerned with (1) information contained in completed technical documents and reports, including those in the open literature as well as those originating within the Federal Government and its contractors; (2) information about projects which are in process, authorized, or projected; (3) information about the special areas of competence of scientific and technical personnel working on, or qualified to work on, special projects for the Federal Government, its contractors, or other segments of our society (i.e., industry, research universities, etc.); or (4) information about special facilities and equipment available for use in scientific, technical, or other special projects.

Most positions are concerned primarily with information contained in:

1. *Professional, scientific, and technical journals.*—The journal serves two major roles: a vehicle for the communication of new discoveries and ideas, and a repository of knowledge. Journals play a substantial role in the dissemination of Federal research information. Editors and referees evaluate manuscripts submitted for publication, and sometimes suggest changes. This in effect refines the work and places on each published article an official

imprimature. It is this which distinguishes the open published literature from unevaluated technical reports.

Federal information facilities are themselves publishing a large number of journals, state-of-the-art reviews, abstracts, indexes, and bibliographies, as well as books, monographs, and reports of proceedings; in addition, there are innumerable press releases dealing with research results.

2. *Technical reports.*—Since nearly the beginning of science, the so-called "open" published literature has been the chief means of announcing scientific discovery. About 1920, however, another instrument began to achieve increasing use and significance—the technical report (in briefer or sketchier forms the technical note or technical memorandum).

A report of the National Institutes of Health[1] includes an exposition of the growth of the technical report in Federal research and development:

> Agencies of the Federal Government, now represented principally by the DOD, the NASA, and the AEC, beginning about 1940, embarked on a large scale program in technical development. * * * Industry has dominated overwhelmingly the list of R&D contractors, and has captured the lion's share of the funds; it should come as no surprise then that the reporting traditions prevailing in this culture were accepted and adapted by the cognizant Federal agencies. * * * The scientific and technical information generated by the contract becomes the property of the Federal Government, and its further dissemination is determined by the contracting agency.
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> Obviously, the need to protect national security by classifying certain types of information played a major role in the evolution of the operation of this system. The system has been extended to cover the reporting of academic "contractors" and scientists and engineers directly employed in Government laboratories. The technical report is of particular and crucial importance in those situations in which a Federal agency or one of its prime contractors serves as manager and coordinator of a complex, interdependent, multi-faceted developmental program such as the production of a new weapons system.

Once the technical report is received by the agency, it is treated to varying degrees of evaluation. Reports may be reviewed only by the project officer or specific research staff person responsible for the contract or grant. In some cases, content analysis of technical reports is made by a scientific or technical analysis board.

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[1] Report to the Select Committee on Government Research by National Institutes of Health.

For a variety of reasons some reports, after reaching Government agencies, are withheld from unrestricted dissemination. A leading reason is, of course, national security. Another consideration is proprietary interest. Aside from the security and proprietary considerations which restrict dissemination of research information, there are restrictions placed by some agencies on the applicants eligible to receive information from them.

For those reports not, or no longer, subject to control, a major problem is dissemination. Here practice varies almost with the number of agencies receiving reports. Some agencies contract out distribution. Other agencies operate large secondary distribution centers. These centers receive the reports of their own agencies and issue catalogs listing them, together with abstracts and a subject index. Some catalogs also contain abstracts of related technical books, patents, and journal articles appearing in the world's literature.

Some agencies distribute reports of other agencies. About half of the agencies and bureaus send copies of their reports to the Library of Congress and to the Superintendent of Documents (Government Printing Office). The Federal Clearinghouse for Scientific and Technical Information (Commerce) and GPO serve as secondary distribution points for the unclassified reports of most agencies.

FUNCTIONS PERFORMED BY TECHNICAL INFORMATION SPECIALISTS

Technical information specialists perform *any* of the various elements of work described briefly on pages 4 to 7 of the Guide for the Classification of Positions Providing Professional-Level Library and Information Services. Performance of such duties requires a broad (but not necessarily deep) knowledge of a variety of subject fields sufficient to understand the significance and relationships of the concepts and ideas contained in the literature; and a practical knowledge of the specific documentation or library methods and techniques used in processing the literature. Some technical information specialists must understand and apply the special techniques, methods, and devices of a semi- or fully-automated information system; some must have foreign language proficiency to read documents generated in languages other than English.

The most common functions performed by the technical information specialist include:

1. *Analyzing source materials, indexing, extracting and abstracting*

This involves the detailed examination of source materials to understand the intellectual content, to determine the essential features of the information, and to select points of view (or analytics) that are considered to be of sufficient probable importance to warrant the effort of rendering them searchable in the system.

Subject analysis of technical reports or other research documents is difficult because it involves recording characteristics for retrieval at a later date when the implications inherent in future requests are unknown at the time of recording and when the terminology has not yet crystallized into any standardized form. Superimposed on this is the problem of finding suitable words which characterize these shifting concepts. The words of the document are not necessarily those which are in current use, nor will they always be the same words used to characterize an information request put to the file at a later date.

Faced with several thousands of words normally found in a typical document, the specialist selects those words and ideas which seem significant, based upon his subjective knowledge of the subject matter. Such a selection is conditioned by his academic training, observance of the frequency of occurrence of certain words, knowledge of the pattern of use of the literature, acquaintance with the terminology used in the phrasing of questions to be put to the file, and comparative knowledge and ignorance of the association of ideas or relationships between the concepts recorded in the document.

The amount of detail, or "depth" of analysis, and the form in which it is provided is dependent upon the purposes that the analysis is expected to serve. Three types of purposes may be identified: (1) to provide a substitute for the original source material; (2) to permit determination as to whether it is useful to obtain and read the source material; and (3) to permit identification of source materials that are probably of interest in connection with one or another quest for information.

Analysis may result in indexing, abstracting, or extracting of the source documents.

a. *Indexing.*—The selection of words or ideas from a graphic record on the basis of well-defined rules, in order to facilitate the identification or selection of desired records after they have been stored.

The difficulty in indexing is compounded by the breakdown of traditional subject divisions, which occasion a rearrangement of concepts; the use of the same terminology with different meanings in various fields of knowledge; changes in terminology and the eventual association of ideas not apparent at the time of indexing; continual shifts in subject interest and, conversely, the underindexing of topics later proved to be of interest. Changes in the clientele using the file are likely to negate the "point of view" with which the file has been indexed. It is therefore evident that the indexer is to a certain extent predicting future information requests (in terms of subject areas, terminology, and association of ideas) to be put to the file at a later date, occasioned by a state of technology and subject needs yet unknown.

There are two recognized levels of indexing:

(1) *"Word" level.*—This consists of selecting words from source documents which *appear* to be of importance. Such indexing is *usually* done by a nontechnical person or by machine. It implies that the indexer either has insufficient understanding of the subject matter of the source material or insufficient time to conduct a thorough analysis of the material so that the identification of "catch" or key words from within the material serves as a basis for identifying these features. POSITIONS CONCERNED WITH INDEXING AT THE "WORD" LEVEL ARE NOT CLASSIFIABLE TO THIS SERIES when utilization of professional scientific subject knowledges are *not* required. Under

some circumstances, such as intelligence work, indexing at the word level may require subject knowledge.

(2) *"Concept" level.*—Here, an attempt is made to look behind the words used by the author of the source material in an attempt to discern "concepts" which underlie the discussion. It should be obvious that a concept is not a rigid, inflexible criterion. *The extent of penetration into the underlying meaning of a source material or a portion thereof cannot exceed the precision or depth of understanding of the subject matter attainable by the indexer,* who in turn is attempting to identify those concepts which will be meaningful to an ultimate user of the service. To provide the required input quality under the concept level, the indexers must (*a*) thoroughly familiarize themselves with the document and its contents, (*b*) analyze carefully the information to be indexed, (*c*) identify the concepts with which the information is concerned, (*d*) evaluate the significance or relevance of the information to the needs of the users, and then (*e*) describe the concepts adequately and fully to insure that the system will be capable of providing rapid, efficient, economical retrieval. These intellectual activities—namely, analysis, identification, evaluation, and description—comprise the operation of indexing at the concept level.

When concepts are to be identified, it is possible to have pre-established concepts which have been determined to be of probable interest to users of the information service, and to use only those which are so identified. This, of course, involves the pre-establishment of "subject authority" lists, with the scope of meaning or of subject matter clearly identified, so that only those features which match the concepts may be used.

In concept coordination systems, the indexer determines the nature of the information in the source document and describes that information by terms which represent UNIT CONCEPTS. As many terms are used to describe the information as can be justified in terms of the scope and quality of the information contained in the document and in terms of the needs of the users. These terms serve as "locators" of documents when information is needed. Documents are retrieved by correlating, rerelating, reassociating, recombining, or bringing into coordination those terms which describe the information being sought.

Analysis of technical reports or other research materials is also influenced by secrecy requirements. The full source material may be "classified", requiring the specialist to analyze it at a sufficient depth (in non-classified terminology) to provide some insight into the subject matter or essential features of the material and still not reveal the particulars of an activity or an experiment which are considered secret.

b. *Abstracting.*—The preparation of an abstract involves concentrating in brief form the essential qualities of a publication, or of several publications. It is primarily a summary of a document or article accompanied by an adequate bibliographical description to enable the publication or article to be traced. The *simple* abstract is one that merely describes and does not involve subject analysis; an *analytical* abstract involves subject analysis; a *critical* abstract not only involves subject analysis but also relates to the relative value of the material.

The abstract generally takes one of two forms: (1) *descriptive* or *indicative*, in which the function of the abstract is to advise the reader that an article exists and to furnish substantial information for him to decide whether or not he wishes to review the original; or (2) *informative*, in which a brief but complete discussion of the article is included, noting all high points, and which ideally obviates the necessity of referring to the original.

c. *Extracting.*—Selecting for quotation portions of source materials. The specialist performing this operation is charged with the responsibility of perusing the source document and then, after formulating an opinion as to the value and pertinence of the document, of selecting sentences, phrases, words and/or paragraphs which, in his estimation, most closely embody the theme of the document.

In some considerations, the abstract and extract are similar. It must be remembered, however, that the abstract is often a summation of information in the words of the abstracter, whereas the extract is the summation of thoughts in the original words of the author.

2. *Developing terminology controls*

This concerns the development of thesauri, lists of descriptors, subject heading lists, etc. It is the unit operation which attempts to provide a semantic bridge between the language used by an indexer and the language employed by an individual who wishes to direct a question to an information facility. Terminology control also endeavors to keep words used in any field within known limits.

Developing and operating a terminology control policy requires scrutiny of many variables, all of which influence the final system. Some of these variables are: type of documents handled; subject field; clientele interests; and the needs of other cooperating document and information facilities (either of the same subject orientation or of an interdisciplinary nature).

The terminology control function involves:

a. Analyzing the meaning of the "essential features" of source materials. This meaning may be discerned through definitions found in dictionaries, either general or specialized, or may be derived from the special context of these terms in particular source materials or in a collection of source materials.

b. Selecting those meanings which are considered to be probably useful for the purposes of the information system, and recording these in appropriate fashion.

3. *Literature searching*

This includes the systematic, comprehensive, or exhaustive search for information bearing on a specific problem, or subject, performed as a special service for specialists engaged in research or other scientific, technical, or specialized work.

There are two situations which occur in searching for information. The first is looking for something that is known to exist. This is a search of recall, retrieval of documents previously examined. The second is looking for unknown information or the closest thing to it that does exist. This is a search of discovery in which the existence of the document is unknown. As one author writes, "These are the most interesting and probably the most important for progress in research. Such searches are planned adventures into the unknown. . ."

Successful accomplishment of a literature search requires skill on the part of the client in communicating his information needs; *it also depends upon the degree to which the technical information specialists have their own independent knowledge of the situation giving rise to the user's question.* This knowledge of the subject is necessary to provide a "match" between the user's formulation of his question and the interpretations of that inquiry which the technical information specialists must make to plan their search strategies.

The following are examples of literature searching services which may be provided:

a. *Retrospective searches*—include those information needs or questions which are of one-time interest and for which responses are derived from searching previously processed source materials.

b. *Current-awareness programs*—include those information needs or questions which are of continuing short- or long-term interest and for which responses are derived from searching currently processed source materials. This type of service requires the determination, in advance, of the information interests of a given individual, department, group, etc. A profile is then created from this information, including the subject area, depth or technicality, and perhaps volume of information desired. Periodically, information is reviewed and new articles, abstracts, or citations which match the profile are disseminated.

c. *Automatic dissemination programs*—include those information needs not expressed specifically by the clientele. With this type of service, the technical information specialist identifies information of probable importance. An endeavor is made to provide materials on a selective basis to expose users to information falling within their range of interest. One approach, for example, is a weekly accession list (or similar document) which is mass-disseminated to everyone in a given concern, subject area, etc. In another approach, the reviewer of the information disseminates what he believes are pertinent articles to specialized individuals, based on the reviewer's intuitive feelings and the past literature that has been requested.

Results of the search, regardless of retrieval systems, are presented in many forms. These may include: (1) direct "answers" to a question; (2) provision of data relating to a question or problem; (3) provision of documents, abstracts, or extracts; or (4) the compilation of a bibliography. A bibliography may be a listing of any or part of a series of papers, reports or data issued over a given period of time; a listing of books, maps, etc.; a listing of references covering a period of time in a certain subject area and compiled from various publications and indexes. Although the bibliography does not, of itself, provide the source of information which the user is seeking, it does provide a reference point from which to conduct a more precise search. (A search which results in a comprehensive state-of-the-art report, as a general rule, would be performed by a subject specialist.)

OFFICIAL TITLES AND SPECIALIZATIONS

A. *Authorized titles*

Technical Information Specialist.—This title should be used for all nonsupervisory positions concerned with direction, development, administration, coordination, or performance of information services. An appropriate specialization should be added as authorized in paragraph B.

Supervisory Technical Information Specialist.—The supervisory title should be used when the position includes responsibility for supervising a number of professional or technical positions, and the supervisory duties and responsibilities constitute a regular part of the position and are of such significance as to require supervisory qualifications. Such positions are distinguished from Technical Information Officer positions in that they do not involve overall program responsibility. (*Note:* The Supervisory Grade-Evaluation Guide, Part II, should be applied in determining (*a*) which positions are supervisory in nature, and (*b*) the grade level of the supervisory positions.)

Technical Information Officer.—This title should be used for managerial positions concerned with administration or direction of the overall technical information services program.

B. *Authorized specializations*

The following authorized specializations are to be used as parenthetical additions to the official title, e.g., Technical Information Specialist (Medical Sciences), or Technical Information Specialist (Physical Sciences-Slavic Languages).

Subject Specializations

Biological Sciences
Medical Sciences
Physical Sciences
Social Sciences
Engineering
Business and Industry
Education
Fine Arts
Humanities
Law
Music

Foreign Language Specializations

Arabic
Germanic
Oriental
Romance
Slavic

GRADE-LEVEL EVALUATION

The Guide for the Classification of Positions Providing Professional-Level Library and Information Services is to be used in evaluating the grade level of positions in this series.

FACTOR 1, SCOPE OF ASSIGNMENT
LIBRARY SERIES GS-1410
TECHNICAL INFORMATION SERVICES SERIES GS-1412

Degree A

Assignment of average, normal, regular, difficulty relating to a library function--cataloging, indexing, reference service, literature searching, etc.

Defined segments of more difficult work to provide training for higher level work or

In charge of a library or information service restricted in scope or coverage.

Requires training and competence in theories, principles, and techniques of librarianship or one or more professional, scientific, or technical disciplines or subject matter areas.

Assignments: include performance of one or more functions considered of average or normal difficulty because of limited scope, coverage or size of the collection

:concern collection of materials extensive in scope, coverage or size, with limited or restricted duties

:seldom involve detailed subject analysis, extensive searching, interpretation or evaluation of re-

Degree C

Exceeds degree A in breadth and/or depth of assignment; encompasses work of more than average or normal difficulty.
"Specialist" in functional area, subject, foreign language(s) or geographic area.

Performs broad assignments, special projects, or staff studies relating to program planning, management, surveillance or coordination of services, or

In charge of library or information service, or subdivision of larger facility, providing comprehensive and selective reference in a specialized subject area or broad areas of general interest.

Requires specialized professional or technical experience and proficiency in particular function, services, programs or projects; in subject area or field of interest extensive in coverage or penetrating in depth; or in application of theories, principles, and techniques of librarianship.

May require high degree of competency

Degree E

Exceeds substantially degree C in responsibility for formulating, developing, coordinating or directing programs, policies, techniques, or operations; or in understanding, use and dissemination of research information in complex or advanced fields of knowledge.

Requires extended and highly specialized experience in application of theories, principles, and techniques of librarianship in general library system or research libraries with national significance or impact, or analyzing, interpreting, evaluating or developing information in intensive and extensive subject areas; or developing techniques, methodologies or working tools of highly specialized information service with national significance or impact.

Work with collections which are broad in scope and penetrating in depth, with large-scale operations or programs of national significance and impact.

Provision of consultative services and advanced information

FACTOR 1, SCOPE OF ASSIGNMENT

search literature; or proficiency needed to read and process technical documents in a foreign language area; or administrative, staff, or other elements of difficulty considered above average.	in reading and processing of technical material in several foreign languages; in use of various documentation systems, or automatic data processing equipment.	embracing broad subjects or programs of the agency, requiring application of extended experience in an intensive and extensive subject-matter area.
Serves as individual in charge of a library or information service restricted in scope or coverage, and personally performs work of the degree A level of difficulty.	Works with collections which are broad in scope and/or penetrating in coverage.	Performs original development work in one or more functions in a large-scale operation, requiring application of extended experience in librarianship or documentation techniques and/or highly specialized
	Performance of one or more functions as a specialist, requiring application of either penetrating knowledge of a particular subject and related subjects, a broad knowledge of a subject field, or special bibliographic competence or a librarian in a complex of subjects. May require proficiency in two or more foreign languages.	
	Work is done in connection with difficult materials (e.g. government documents, serials presenting special bibliographic problems); or materials in new fields of knowledge.	
	Staff assignments or special projects requiring participation in formulating policies, developing program plans, coordinating staff activities, methods, or techniques.	
	In charge of research or reference dollection personally performing work of the degree C level of difficulty.	

FACTOR 2, LEVEL OF RESPONSIBILITY
LIBRARIAN SERIES GS-1410
TECHNICAL INFORMATION SERVICE SERIES GS-12

Degree A	Degree C	Degree E
Availability of Guidelines and Originality Required		
Work is performed within framework of specific operating instructions and procedures, under clear-cut guides and policies; follows standard applicable tools as agency-generated manuals. Few opportunities for use of originality.	Work is performed within limits of objectives established by the organization. General means of accomplishment included in policy statements, delegations of authority, procedural manuals or operating instructions. Must be familiar with extensive reference sources; be resourceful in finding materials or information requiring extensive searching within or outside the library or information facility; possesses full understanding of library or documentation techniques, methods and tools; uses seasoned judgment in applying guidelines and techniques.	Expert consultants and technical advisers recognized for outstanding competence, serve as authoritative sources of information and leaders in their programs. Originality, initiative and resourcefulness are prime requirements.
--selection or acquisition of material requiring limited use of judgment.	--selection and acquisition requiring good judgment and discrimination in maintaining comprehensive and well-balanced collection.	--responsible for use of original and constructive thinking in development of program policies, plans or objectives; or in organization of library or information services; or in devising new approaches, methods or techniques for accomplishment of objectives--or
--decisions pertaining to cataloging, classification and assignment of subject headings limited to materials where choice of entry and rules to be followed are clearly established.	--descriptive cataloging, classifying and assignment of subject headings demanding extensive knowledge and discriminating use of variety of	--greater need for independent analysis, interpretation and evaluation of highly complex, controversial, or abstract information; or deeper understanding of intellectual processes associated with cataloging, classification, indexing, storing, or retrieval of documents; greater insights into patterns of usage of
--searches are limited to those which can be handled in standard reference aids.		
--preparation of bibliographies limited to sources readily located and to limited bibliographic descriptions.		

reference sources and tools; extensive and critical searching for sources of information; exercise of experienced judgment in determining cataloging principles, and the extent of subject analysis necessary.

--reference and literature searching require selective judgment in use of variety of reference sources; in extensive and critical searching for sources; in evaluation of specialized information on specific topics; in use of material not ordinarily considered related to field involved; or in locating, selecting, and organizing information in publications not adequately covered in catalog or usual bibliographic controls.

--selecting, analyzing and organizing descriptors and identifiers for efficient retrieval of information by electronic data processing equipment using judgment in use of a thesaurus.

--use of experienced judgment in determining scope of special bibliographies.

--administrative responsibilities requiring experienced judgment in applying broad knowledge of library management, budget, and policy determinations, and in program implementation and evaluation.

literature--or

--greater need of seasoned and experienced judgment in adaptation of existing techniques, methods, or operations to novel or unprecedented problems or situations.

Personal Contacts--

Contacts are to maintain cooperative working relationships to obtain and provide information, including those within the library or information service and those with clientele. Occasional participation in informational programs, such as book talks or presentations to the general public.	Significant contacts to establish and maintain cooperative work relationships to provide, obtain, or exchange information. Contacts are with clientele of library or information services; with staff of other library and information facilitries, or with State, local or private industrial organizations. Some may work closely with dealers, donors and exchange sources in acquisition; others are responsible for establishing necessary contacts within community or organization served to insure usefulness of library and effectiveness of information service. Attend seminars and meetings of professional and technical organizations for purpose of keeping current or representing organization.	Contacts are of vital importance to development and effectiveness of the library or information program. Establish and maintain continuing consultative relationships with peers for purpose of locating and exchanging information. Develop and foster working relationships with other information or library centers. Exchange information regarding new developments and techniques and cooperate on programs of mutual interest. Serve as spokesmen for policies, programs and objectives of their agencies in contacts with high level administrative and executive personnel in the agency, or with State and local officials in charge of libraries or information facilities. Represent their organizations in dealings with private organizations interested in Agency's program. Represent Agency on interagency committees, national or international conferences. Contacts involve discussions of needs and objectives of program, new methods or techniques being developed, or to elicit understanding or support for the program.

FACTOR 2, LEVEL OF RESPONSIBILITY
-4-

Supervision Received---

Routine or repetitive duties performed under technical supervision of higher grade specialist in same area of competence. Supervision includes provision of instructions on procedures and techniques, advice and guidance. Work is reviewed or revised, as required.

Employee in small or limited library, bookmobile, extension service, document collection may operate independently or be under administrative supervision. Employee receives technical guidance and direction from librarian or higher grade specialist in same area of competence in another location or at higher level of authority. Specialized services are provided by parent library or at central location. Policies, objectives, and methods for operation are well-established.

Increasingly difficult duties may be assigned as training for higher level functions. Work assignments,

Work under general technical supervision of unit or section head. General instructions as to policy and objectives, methods and techniques to be used. Supervisor is available for consultation and advice. Subject specialist may provide guidance when needed.

Decisions on matters within scope of employee's language and/or subject proficiency, or on methods of locating, retrieving and presenting information are made within bounds of delegated authority. Discerns nonroutine actions and refers to proper authority. Work may be reviewed.

Employees who perform advisory, coordinating, or administrative duties in a library system, or major information service, work under general technical supervisor. Make recommendations on development of collections, suggest changes in services and technical and administrative policies. Librarians in charge of

Work under administrative supervision with considerable freedom from control. Superior discusses overall policies and plans and provides administrative direction.

Resolves most questions that arise; held accountable for formulating and executing plans and procedures. Work is reviewed for overall effectiveness and compliance. Only technical matters affecting agency policy are referred to higher levels.

Subject specialist with responsibility for preparing analytical, evaluative state-of-the-art reports has results accepted as valid. Work not subject to regular review for scientific and technical accuracy.

Employees in charge of independent library work under administrative supervision only. Direct work of one or two professional and several nonprofessional employees. Determines scope of collection, extent of

selected to provide breadth or depth of experience are carefully reviewed.	independently operated library or branch library receive guidance from coordinating office. Librarian uses judgment in coordinating operations, determines pattern of organization of collection and provides services. End results are reviewed.	service, technical and administrative policy, and operating procedure. Develop and justify the budget, recommend personnel actions, decide on equipment and facilities. Responsible for evaluating quality of services.

FACTOR 3, KNOWLEDGE REQUIREMENTS
LIBRARIAN SERIES GS-1410
TECHNICAL INFORMATION SERVICES SERIES GS-1412

Level I	Level II Positions require knowledge in subject matter or librarianship below	Level III Positions require knowledge in subject matter or librarianship
Subject Matter------------		
Basic principles, theories, practices, techniques, terminology and expressions of a discipline or subject-matter field. Understanding of standard methods, procedures and techniques of research and analysis in subject field. Knowledge of literature resources in the field. Equivalent to bachelor's degree with major or minor in subjects related to field of work.	Intensive knowledge of specialized, technical or scientific area relating to some aspect of a discipline or mission-oriented field of work; a substantial knowledge of a broad subject-matter field, or a substantial knowledge of a complex of subjects within a mission-oriented field.	Comprehensive knowledge of subject field or complex of subjects, discipline or mission-oriented, requiring long period of pre-professional and professional academic training (e.g., Ph.D. or M.D.) or equivalent experience. Advanced subject-matter knowledges to perform research with information. Involve comprehensive understanding of broad subject-matter areas or intensely specialized fields of research which are: highly theoretical, abstract or controversial; in a continual state of growth or change; on the frontiers of knowledge; involve problems of great importance to scientific community, the agency, or the public; or require advanced knowledge in field of national security, or military science. (These positions are usually classified to the subject-matter series.)

FACTOR 3, KNOWLEDGE REQUIREMENTS
-2-

Library		
Knowledge of library science, documentation, or other information handling techniques, practices, methods, tools, etc. Knowledge equivalent to a minor in library science.	Full professional knowledge of theories, objectives, principles and techniques of librarianship. Breadth of knowledge of literature resources in many subject fields. Considerable depth of information on topics of particular interest to specific clientele. Capacity to meet service needs in particular library situation. Knowledge equivalent to master's degree in library science.	Advanced knowledge of librarianship required long period of pre-professional and professional academic training (Ph.D.) or equivalent experience to perform original and authoritative development work in one or more functions within library science-- advanced knowledge of library administration and management techniques advanced knowledge of techniques of librarianship and information systems or network designs, or advanced knowledge of librarianship, together with intensive specialized knowledge of a subject field and ability to read or translate fluently advanced specialized material in two or more foreign languages.
Foreign Languages		
Knowledge sufficient to read and interpret bibliographical citation in varied fields; or to read and translate nontechnical material or repetitive or standardized technical information which identifies books, documents, reports, etc.; familiarity with common reference materials and in translations.	Knowledge of two or more languages or language area to read and abstract, index, or translate difficult types of subject matter; proficiency requires specialized vocabulary and knowledge of subject matter.	

ILLUSTRATIVE WORK SITUATIONS FOR

FACTOR 1, SCOPE OF ASSIGNMENT

Technical Information Services Series, GS-1412
(see also Librarian Series, GS-1410)

Definitions:
Degree A - Average difficulty; limited scope or coverage; training and competence in subject
Degree C - Above average difficulty; broad scope or penetrating coverage; specialized experience
Degree E - Program development; broad scope and penetrating coverage; extended and highly specialized experience

Degree A	Degree C	Degree E
SELECTION, ACQUISITION AND COLLECTION DEVELOPMENT		
	In a major national documentation center - serves as a subject specialist for a single subject or several broader, related subjects - screens and reviews scientific and technical documents for pertinency to the collection - applies subject knowledge to recognize present or future importance of a document	
CATALOGING, CLASSIFICATION, INDEXING, ABSTRACTING, ETC.		
In a large documentation center - catalogs technical documents - may check or verify security classification or distribution limitations	In a large research library - serves as specialist for cataloging difficult material in Slavic or other languages - cataloging requires language and/or subject competence	In a national information center - serves as the professional authority for subject terminology used in storage, announcement, search and retrieval of scientific and technical information

Degree A	Degree C	Degree E
CATALOGING, CLASSIFICATION, INDEXING, ABSTRACTING, ETC.--(Continued)		
- receives limited assignment in analyzing and indexing scientific and technical reports, journals, etc. in a specialized field, for use in a nationwide announcement, storage, retrieval and dissemination system - indexing requires intensive knowledge of a limited subject - analyzes routine reports or is assigned literature on basis of subject or language competence - indexes and designates articles for inclusion in special bibliographies - adapts or writes abstracts for routine reports - follows established principles and procedures in a computerized operation	- catalogs materials not generally covered by standardsources; entries require extensive research - analyzes and indexes, in depth, scientific and technical reports for storage and retrieval by a computerized system - applies structured format for computer entry and storage - assigns subject terms from a controlled thesaurus - adapts or writes abstracts for specialized reports - performs necessary study and research to clarify terminology to conform to current usage - recommends establishment of new subject terms	- establishes, reviews and maintains a program for developing a standardized working thesaurus - formulated rules for the application of subject terms - conducts studies of the effectiveness of indexing and retrieval systems - supervises and directs the design of special listings and thesauri which are mutually compatible for computer processing
REFERENCE, READER'S ADVISORY, LITERATURE SEARCHING, ETC.		
In a large research library or documentation center - retrieves literature citations for requests involving defined parameters or specific routines - prepares demand search requests following specific instructions on probable subject terms - analyzes specifications of a computer system, to formulate an acceptable search	In a large research library or documentation center - serves as a subject specialist and is responsible for literature searches in a specialized field of research or technology - works closely with technical specialists as a team member in determining nature and extent of a literature search - performs the search, or contracts it out; refines the results - evaluates and analyzes work being performed in subject specialty	In a large research library or documentation center - on the basis of both intensive and extensive knowledge of a broad subject field, performs literature searches on request - analyzes data to determine validity and worth - may arrive at conclusions beyond those of individual authors, and extends the state-of-the-art

Degree A	Degree C	Degree E
REFERENCE, READER'S ADVISORY, LITERATURE SEARCHING, ETC.--(Continued)		
- reviews references to determine and select those relevant to search request In a scientific or technical information center - serves as a subject specialist to meet the information needs of scientific, technical and professional personnel - within prescribed limitations performs the more repetitive duties requiring interpretation and evaluation of literature in a specific subject area - analyzes specific requests, provides replies, compiles data, conducts literature surveys, etc., requiring a basic knowledge of a subject, or intensive knowledge of a limited segment of a subject - refers problems beyond the limited scope of knowledge to personnel of higher grade	- prepares state-of-the-art reports - prepares authoritative analytical abstracts or bibliographies on special or general subjects, which may be published - for bibliographies published on a recurring basis, analyzes the requirements, tests adequacy of coverage, refines parameters or routines of final output In a referral center -serves as a subject specialist - analyzes, for referral, requests which are highly technical and complex - prepares replies to requestors, indicating the national sources best qualified to respond to the specific information needed - maintains a continuing surveillance for information resources in subject area	- determines gaps in available research information, or areas needing literature research - determines type and priority of literature research projects needed - keeps abreast of latest scientific research throughout the world, and contacts experts to update information - writes reports and papers for limited circulation, or publication, on the literature search performed and conclusions drawn In a national referral center - is responsible for planning, directing, coordinating and establishing an active and comprehensive service - responds to inquiries of varying complexity, in any of numerous fields of science and technology - identifies and evaluates alternative sources of information - establishes policies and procedures for developing and maintaining a variety to special files, indexes, rosters, guides, etc. - develops and maintains detailed control mechanisms and feedback procedures for evaluation of service - maintains close liaison with major points of referral and other scientific information services

UNITED STATES CIVIL SERVICE COMMISSION
Bureau of Training
Personnel Management Training Center

A POSITION DESCRIPTION

WRITING POSITION DESCRIPTIONS

THE 4-S FORMULA

As a supervisor you are called upon to write or assit in the writing of position descriptions. Although position descriptions must be complete and accurate, remember that length bears no relationship to the grade assigned. For the sake of those who must read, understand, and carry out what you write, please make your descriptions brief, clear, concise, and simple.

With this in mind here are some suggestions in applying the 4-S Formula to position descriptions:

(1) S - hortness:

a. Try to limit position descriptions to 2 pages.

b. Avoid repetition

C. Avoid the use of functional statements, statistics, and other program information. They are usually available elsewhere.

d. Describe fully the major duties and responsibilities of a position. Minor duties can be covered in a sentence or two.

(2) S - implicity:

a. Use short, plain, everyday words. For example, "Issue" instead of "promulgate"; "after" instead of "subsequent"; "about" instead of "approximately".

(3) S - trength:

a. Use concrete, specific words! To illustrate: "types" instead of "prepares"; "composes correspondence" instead of "handles correspondence".

b. Tell all the sessential facts about the duties and responsibilities of a position.

(4) S - incerity:

A. Avoid meaningless words and phrases such as "performs with eidest latitude for independent judgment"; or "fullest possible extent".

b. Do not draw conclusions by giving your opinion on how difficult or how important the duties are. Such phrases as "most difficult", "highly complex", "initiative of a high order", add little if anything to the description.

A POSITION DESCRIPTION

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1. THE DESCRIPTION ITSELF

You have now been through the most basic and significant background and steps in the 'classification process.' Since it is a more familiar area with most supervisors, we chose to make the material on that topic more summarized than on position descriptions.

Until now we have only touched upon the position description as such. Now we will go into the mechanics of preparing position descriptions.

A first warning here is the same as in 'classification' where you learned that we don't classify persons, but positions; in preparing a position description describe the position or the job to be done, and not the incumbent.

The second warning is in not describing a procedure. To detail the step-by-step description of a position is unnecessary. Grade-controlling factors for classification can be adequately covered without such detail. From this discussion, could we say that a good position description can be used by a supervisor to train a new employee in how to do his job? ________________________

Too much detail makes a responsible job appear to be loaded with low-level duties and could conceivably result in a lower grade. All positions have major tasks and minor tasks. All engineers do some detailing, all supervisors do some work of employees they supervise, and in some places everyone makes coffee. To include all these duties in detail could make minor duties in a position description appear to be major, and the position would have to be

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- No -- We don't want a detailed 'how;' this would be called a procedure manual. The description should only outline in a general manner, what will be done.

graded lower accordingly. This is the third warning---don't include minor details. Select the correct statement below:

- All duties are important in the description.

- Describe the major duties only.

The last warning is in the language of the description. Don't use technical terminology. Do use lay terms. For example, a lawyer would not "prepare tort actions under the doctrine of Res Ipsa Loquitur" --- he would merely "prepare civil law suits." The main four 'don'ts' then are:

1. ______________________________

2. ______________________________

3. ______________________________

4. ______________________________

One other possible problem is in the length of the description. If the one preparing the description observes the 'don'ts' of not listing minor duties or procedures, the length will be about right automatically. As a general rule the length should not be over two pages. Would you consider one page enough for a description? ______________________.

- Only the major duties are to be used in describing the position. All duties should be considered---but only the major duties listed in the written position description. A duty is 'major' by three general tests:

1. You, as supervisor, assign it as such.
2. The duty is done frequently.
3. It takes a good deal of the time of the position. (As a rule of thumb, a duty requiring less than 5% of the time is a minor duty.)

A catch-all phrase to include all the insignificant details which can end most position descriptions, is: "Performs other duties as assigned."

- Don't describe the incumbent; don't describe procedures; don't describe minor duties; and don't write too technically.

- Yes -- A position description is long enough when you have listed all the major, or grade-controlling factors of the position. Here, we should review the classification factors we earlier stated as grade-controlling for 'Class Act' positions. They are:

1. Nature and variety of work.
2. Supervision exercised
3. Effect of decisions made
4. Supervision received
5. Available guidelines
6. Personal contacts
7. Originality required
8. Qualifications required

Again, only the major factors applying to a given position should be described. In review, grade-controlling factors can be determined from the ______________

________________________ ________________

or _____________________.

Civil Service Commission personnel refer to a good position description which is accurate, stripped of meaningless detail, and easily understood, as "mean, lean and clean".

2. THE FORMAT

Now to move into the actual writing of a position description.

First, the format of our description must be discussed. There is no hard and fast rule, but a fairly good outline to follow, which will assure that you get in most of the necessary facts, is shown below:

I. Introduction
II. Job Controls
III. Primary Duties
IV. Other Significant Facts

The following simple position description is inserted to illustrate the use of this outline.

- Position Classification Standards or the Classifier

Mail Boy, GS-123

Bureau of Personnel
Management

POSITION DESCRIPTION

INTRODUCTION

This position is located in the Office Services Branch, the organizational function of which is described in the organization manual. The primary mission of this position is to pick up and deliver inter-office correspondence.

JOB CONTROLS

As guidelines, this position utilizes the procedure manual on routine inter-office correspondence; receives oral instructions from supervisor, and written notes attached to correspondence.

PRIMARY DUTIES

Makes rounds of offices according to established schedule and sequence. Picks up correspondence and material to go to other offices. Delivers correspondence and material to proper offices. Returns to mail room and sorts material picked up, for delivery on next round in scheduled sequence of offices. Performs other duties as assigned.

OTHER SIGNIFICANT FACTS

Must possess a valid drivers license as position requires occasional driving of company car to pick up postage stamps. Must not be color blind, as some engineering data is sorted by color-coded charts.

3. START 'WRITE' HERE

Many times the most difficult thing in writing a position description is in putting down the first word. It is simple enough to 'locate' the position in the right place, as spelled out under the INTRODUCTION. Usually it is equally simple to list the guides, manuals, or other controls including oral and written controls which a position must follow; this takes care of the JOB CONTROLS.

Now we are at the most difficult part --- PRIMARY DUTIES. As a quick 'tip-off' as to how to begin, one can usually look at the position's title, or main mission. Certain types of positions generally always do the same type of thing. The next page lists various types of positions and work, then following each, is the usual mission of that activitiy.

POSITION	MISSION
Engineers	design (study, plan, calculate, etc.)
Clerks	maintain records (accounting, files, etc.)
Typists	type
Clerk Typists	maintain records and type
Managers	manage (plan, coordinate, direct)
Supervisors	supervise
Administrators	administer
Analysts	analyze (compile, compute)
Accountants	devise accounting systems (maintain such)
Statisticians	maintain statistics (compile, compute, calculate)
Draftsmen	prepare engineering drawings
Technicians	provide technical services (to assist professionals)
Bookkeepers	maintain books (single, double entry, etc.)
Operators	operate (comptometer, mimeograph, systems)
Repairmen	repair
Assistants	assist
Secretary	provide secretarial services to relieve supervisor of detail.
Stenographer	provide stenographic services (shorthand, type, file, etc.)
Appraisers	appraise value
Foremen	oversee (Wage Board usually, as opposed to Supervisor in Class-Act positions)
Leadmen	lead workers by setting the pace (is somewhat of a working foreman)

The foregoing positions with their usual missions give you a good starting place for listing DUTIES on those positions. Also, this summary (mission) of the whole position is usually stated under the INTRODUCTION as shown on the description of the mail boy on page 22.

4. TWO METHODS FOR LISTING ORDER OF DUTIES

Basically, there are two methods, either of which one may follow in writing the DUTIES of the position description. They can be called the

1. sequence method, and
2. random method

As the name implies, the 'sequence' method describes the major factors of the position in the sequence in which the duties are performed. The 'random' method describes the factors just one at a time without regard to the order. Neither is best. Either may be easier or better for a given position.

If a position has a logical flow of work duties it is usually both easier to describe and easier for the reader to understand by utilizing the 'sequence' method. Many positions, such as supervisory and many clerical positions with a good deal of variety, make using the random method necessary. One who would assemble an electric meter from start to finish could probably better be described by the ____________________ method.

- sequence

(a) THE SEQUENCE METHOD

Here are three positions as one might describe them with the sequence method; the 'steps' are numbered. You can easily follow in your thinking the 'flow' of the work. In this sense, the position can be looked at as a verbal flow chart.

I.

1. Receives customer meter tapes from field personnel.
2. Computes total of each tape.
3. Applies appropriate rate for each customer and calculates amount owed by each, using a calculator.
4. Hand-posts customer invoices, listing customer, address, KW usage, and amount owed.
5. Types envelopes for mailing invoices.
6. Inserts completed invoices into envelopes and gives to messenger for mailing.

II.

Receives project assignments from supervisor, for designing steel utility towers.

2. Studies desired products from engineering viewpoint.
3. Designs most feasible tower structure, by considering usage, wind velocities, subsoil, and cable weight, and calculating required specifications.
4. Prepares sketches of towers designed, depicting pertinent engineering specifications.
5. Gives sketches to draftsmen for detailing.
6. Checks completed detailed drawings for accuracy.
7. Approves completed drawings.

III.

1. Confers with supervisor to determine planned projects, objectives and priorities.
2. Makes preliminary studies of engineering feasibility of planned projects.
3. Recommends approval of projects, based on studies made.
4. Assigns approved projects and various phases of each to engineering personnel.
5. Spot-checks development of projects by engineering personnel.
6. Reviews completed drawings and specifications for general accuracy.
7. Transmits completed drawings to Construction Unit for use in construction.
8. Resolves construction problems regarding engineering discrepancies or questions.

(b) THE RANDOM METHOD

An example of the 'random' method follows:

1. Receives incoming mail.
2. Sorts and routes mail.
3. Purges unit files weekly.
4. Posts daily activities to the unit activity record.
5. Files correspondence, records, reports and other material alphabetically or numerically.
6. Types reports and records from rough copy.
7. Totals daily activity reports, by items, weekly and monthly.
8. Requisitions office supplies as needed.
9. Answers telephone for unit.
10. Relieves on reception desk.

In this 'random' type description, one can see that there is and can be no sequential order. It is a conglomeration by necessity, so the highest degree of order possible here is in grouping like-duties together, such as numbers 1 and 2, also 3 and 5.

5. ACTION VERBS AND ACCURACY

You will notice that the 'mission' word or words on the list on page 30 are all action verbs. It is usually well to begin each sentence in the DUTIES section with an action verb. This is good for several reasons. One, it cuts excess words. Two, it gives the reader an immediate and accurate understanding of what is being done, and at what general level of responsibility.

(a) ACTION VERBS REDUCE VERBAGE

To give some examples of what we mean by cutting excess words, one may describe a duty as such:

> "It is the responsibility of the incumbent in this position to see that all engineering drawings are filed."

Naturally, since this description covers this position only, we know that the DUTIES of this position are all responsibilities of "this position", so we can skip those comments. We can also delete the reference to "the incumbent", since we are writing about the position and not the person. It's so much easier, as well as understandable to the reader, therefore to simply say:

> "Files engineering drawings"
> or perhaps
> "Maintains files of engineering drawings."

It may be good narrative or good editorialism to write a DUTY as such:

> "This branch is very unique in that it requires the incumbent herein to maintain its very responsible records according to standards prescribed by the Department of the Interior and it also requires that the same records be maintained in a way designed by S.P.A. Officials."

Good narrative and editorialism is not our goal. Stick to duties. Here, the writer could have stated simply:

> "Maintains records according to Departmental and S.P.A. requirements."

The latter says the same thing and wouldn't you rather read it? Any unusual or unique detail is to be investigated in the desk audit of the position by the Classifier. This is only a general rule and naturally, there will be exceptions worthy of mentioning in some position descriptions.

(b) CHOOSE YOUR MOST ACCURATE 'WORD-WEAPON'

This discussion is not to mean that you shall 'play down' a position by over-summarizing or using 'small' words. For example, a Manager manages work usually, but a Manager also usually "plans, organizes, coordinates and directs the work", so you should say so. This is the main gist of preparing position descriptions --- be accurate in what you say!

A list of action verbs which may be helpful in accurately beginning the statements of DUTIES follows:

manages
supervises
administers
oversees
leads
instructs
coordinates
organizes
directs
ensures
assures
checks
maintains
plans
studies
attends
meets
prepares
repairs
aligns
bends
bolts
covers
creases
grinds
splices
drills
erects
fuses
grooves
solders
miters
screws
sorts
welds
winds
shapes
perforates
operates
files
punches
transmits
transports
removes
inserts
synchronizes
manipulates
controls
calculates
computes
totals
posts
types
serves
provides
approves
selects
answers
warns
stamps

The list could go on and on, but this gives you the idea.

Another reason for beginning a statement with an action verb is that this verb alone somewhat places the reader on 'guard' as to the responsibility level involved. As we have said, a supervisor supervises. This carries with it a connotation of working person-to-person. But a manager would direct work. The word 'direct' usually carries with it the connotation of more non-personal contact with the worker and normally the direction is performed through intermediate supervisors. Managing deals more with the overall program. Supervising more commonly relates to getting parts of the overall program done. So the verb 'manages' usually carries a more responsible meaning than 'supervises.' Grading (classification) will be more accurate when you use correct terminology.

Another example is in the words 'calculates' and 'totals.' 'Calculates' implies higher math (by Webster) and 'totals' simply refers to addition.

A common inaccuracy in terminology is in the use of 'shop talk.' It's easy to let 'shop talk' creep into descriptions. For example, one who maintains or services oil transformers refers to "pulling an oil sample." Pulling, in the dictionary means to drag. The worker 'obtains' a sample of oil actually. A common wrong verb is 'keeps' as used in 'keeps records.' Keeps means to get something and never return it. A person therefore, would maintain a record.

A very common problem-word is 'handles' the mail. What does it mean? Here are some possibilities:

1. Picks up at Post Office
2. Sorts
3. Opens
4. Distributes
5. Reads
6. Routes
7. Answers
8. Files

This play on words gets into what could be called a 'nit-picking' category but since we're writing a position description that we may have to defend to the CSC let's try to say what we mean, accurately, which usually is the easier way.

6. WHAT, HOW, and WHY

In the actual grammatical construction of each of the DUTIES, one can usually analyze most sentences and find a WHAT, HOW, and WHY in each. For example, below are some sentences which represent duties of different jobs. Some have the WHAT, HOW and WHY indicated. Some you can fill in. Note the action verb beginning each.

1. Provides stenographic services (what) as required in the section (why) by taking and transcribing shorthand dictation, typing, and maintaining records (how).

2. Operates an engine lathe (what) by making set ups and manipulating controls (how) to cut and shape external and internal surfaces of valve castings (why).

3. Designs structural steel microwave towers (   ) necessary to the company's communications system (   ) by studying desired products, calculating engineering specifications, and making sketches of towers (   ).

4. Sets up, makes adjustments for and manually (   ) operates a multilith duplicating machine (   ) to reproduce clerical forms, reports, and other material (   ).

5. Patrols lines (   ) by walking beneath (   ) to observe for breaks (   ).

6. Totals KW usage shown on meter tapes (   ) for posting to invoices (   ), using an adding machine (   ).

- 3. what), (why), (how)

- 4. (how), (what), (why)

- 5. (what), (how), (why)

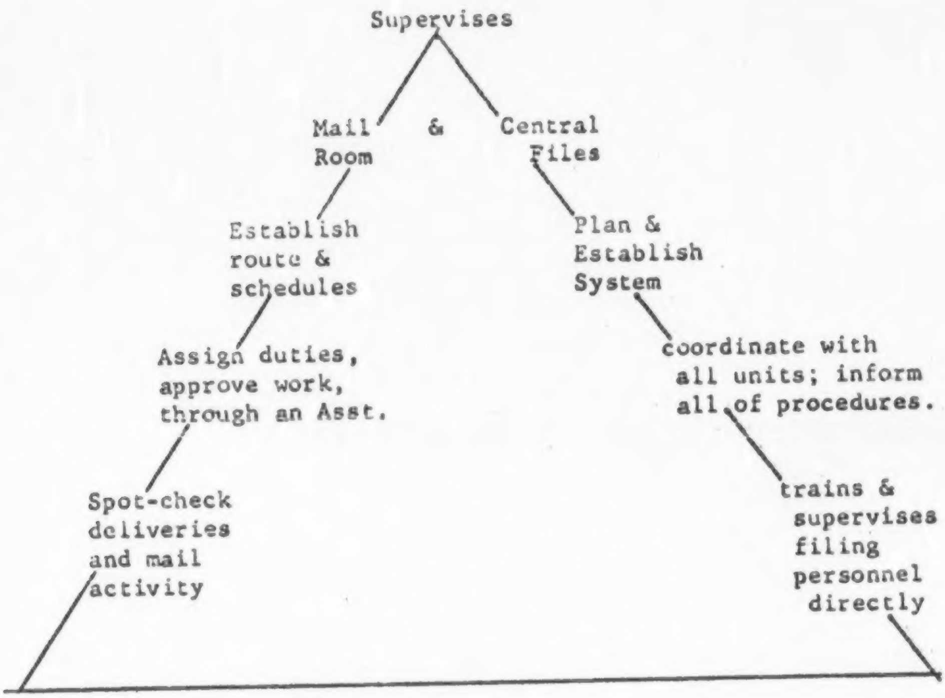
- 6. what), (why), (how)

We might be able to better depict the intended usage of the WHAT, HOW, and WHY elements in an outline form.

- WHAT
  - Physical Responses Required (operates, types, cuts)
  - Mental Responses Required (Plans, studies, supervises)
- HOW
  - Physically
    - Machinery
    - Tools
    - Equipment
  - Mentally
    - Judgment or Decision
    - Formulas
    - Calculations
- WHY
  - The purpose or mission of the job; it justifies
  - The WHAT and HOW; it relates to other jobs in the organization.

7. BUILD A PYRAMID OF DUTIES

Now that you can write a 'duty', let's look at all the duties in the description. I know of no easier way of beginning and structuring the PRIMARY DUTY section of a position description than to open with the summary of the position at the top. This starts the pyramid at the top. Then work down and out, as a pyramid, as you develop all the duties in the position. The idea is to first summarize the mission, then list the grade-controlling factors below. For a supervisor's position which is responsible for mail and central files, you might see it as shown on the following page.


Supervises
Mail Room
&
Central Files
Establish route & schedules
Plan & Establish System
Assign duties, approve work, through an Asst.
coordinate with all units; inform all of procedures.
Spot-check deliveries and mail activity
trains & supervises filing personnel directly

Begin with the summary, then start listing the individual duties, following the sequence or random method of describing the duties. Usually, it is better to list the more important duties first, in either method used. The only reason for this is the duties listed first simply appear to be more important, and will be given proper consideration in classification.

Where the position has more than one major responsibility, you can separate them by numbering or alphabetizing your 'outline'. For example, the above 'pyramided' position could be written as a position description as shown on the following page.

Mail and File Supervisor

Bureau of Personnel Management

POSITION DESCRIPTION

INTRODUCTION

This position is located in the Administrative services Division, the organizational function of which is described in the organizational manual. The primary mission of this position is to supervise the mail and central-filing activities.

JOB CONTROLS

Mail room procedure manuals, filing procedure manuals, established methods and practices, written instructions.

PRIMARY DUTIES

1. Supervises mail room activity:
   - A. Establishes routes and schedules for mail boy to follow in making pick-ups and deliveries.
   - B. Assigns duties, work schedules, and approves leave, working through an assistant.
   - C. Spot-checks deliveries and mail activity to assure that procedure is being followed.
   - D. Makes changes as required to compensate for new developments or unusually heavy workload.

2. Supervises central filing activity:
   - A. Studies material to be maintained and plans and establishes filing system.
   - B. Informs all units of procedure to follow in routing data to or requesting data from files.
   - C. Coordinates filing activity with all units to assure that proper records and references are kept as needed for references.
   - D. Assigns duties to personnel, trains new employees, and approves work.

OTHER SIGNIFICANT FACTS

None.

Exercise Number 1

Let's build another position pyramid now. Consider the position of Sally M. Ployee, who helps out in the office by filing correspondance, reports and many various records. She purges those files and keeps them right up-to-date and is real efficient. She furnishes material from the files to different workers who drop by to get it. One of the things 'Super' Viser, her boss, appreciates most, is that she keeps his supply catalogs current, inserting new pages in the loose-leaf binders and she's real careful to destroy the outdated brochures and inserts so that he will not get hold of one not now in use.

Another thing he brags about her on is her typing ability. He says she types his letters and reports quicker than anyone else ever did. The only thing, sometimes she makes a few mistakes. But then, with the large volume of letters she types, he agrees that her accuracy is good enough, because after all, she types letters all morning long, just answering his inquiries from the day before. He makes notes and scribbles or writes his answers on the letters of inquiry and the backs of them and she types from these. She gossips a lot on her coffee breaks and he's warned her about this. She relieved the receptionist twice last week but hadn't before.

From the narrative about Sally, we can see that it's a Clerk-Typist position. Now, write the PRIMARY DUTIES section of the position description. Remember, summarize the position for the top of the pyramid, then add all the major duties below.

The following page is to be used as a worksheet to complete this exercise.

POSITION DESCRIPTION

SUMMARY

"Types correspondence and
maintains files and catalogs."

This is the top of your pyramid, now under the

PRIMARY DUTIES:

1. Types correspondence from rough copy.
2. Maintains unit files of correspondence, reports and records. Furnishes reference data from the files to employees upon request.
3. Maintains loose-leaf supply catalogs.

These three items are sufficient here. Correspondence is all she is typing, so number 1 is complete. 'Maintains' means 'files, purges and keeps current' in both numbers 2 and 3, so there is no need in going into further detail. You've said all she does as duties. To relieve the receptionist twice is not a major duty. Typing speed, accuracy, gossip and other 'filler' material are not duties and have no place in the description. Of course, speed is tested before applicants are placed on the register for employment and certain speeds must be met before being placed on the register in certain grades.

SUMMARY FOR INTRODUCTION

PRIMARY DUTIES

1.

2.

3.

4.

5.

Exercise Number 2

Now for one last writing 'calisthenic'. You write the position description for the position narrated below.

Bill works in the Invoice Branch. Really, he ramrods it. He has been made responsible for getting customer invoices made up and mailed out. He doesn't have time to do much of the work himself because it keeps him hopping just assigning work and rework, spot-checking work-in-process, and seeing that it all gets done on time. He spends most of the time he's not actually getting the work done, in reviewing the procedures and forms and trying to improve them. When he hits on a good idea he recommends it to his boss who approves or disapproves it according to the mood he's in. (The boss either tells him or writes his answer and instructions.) About the first thing he does in the morning is to go to the Meter-tape Gathering Division's Supervisor, (they go around and get the tapes from the meters at customer's locations) to get the meter tapes to be 'worked over' by his employees who make invoices charging for the KW usage shown on the tapes. He chats with the supervisor there to decide about any tape that may be unusual in some way and require special work.

Then he groups the tapes by types and assigns the various groups of tapes to employees who specialize in processing each type. Naturally, problems and questions come up and he resolves these 'bugs' as they come up and then just runs around checking and seeing that everything is going smoothly and right on schedule.

After the employees prepare the invoices by applying the right rate to each KW usage total and writing the invoices up by hand, Bill gets them, checks them for accuracy, and gives them to two girls who put them in 'window' envelopes and take them down to the Post Office to mail them.

Bill wants to be sure that he can remember (and prove if he needs to) all the work done by his group so he keeps records of the daily activity. He summarizes this record monthly and that tells him exactly how tired he should be according to the work done.

The next page is your 'work page'. Complete all of it. The format is set out. Remember the summary first. Also, choose the best action verbs. Set out your PRIMARY DUTIES section using either the sequence or random method. The WHAT, HOW, and WHY should come in easily by now.

POSITION DESCRIPTION

INTRODUCTION

JOB CONTROLS

PRIMARY DUTIES

OTHER SIGNIFICANT FACTS

Position Description - Solution to Exercise Number 2

POSITION DESCRIPTION

INTRODUCTION

This position is located in the Invoice Branch, the organizational function of which is described in the organization manual. The primary mission of the position is to supervise the preparation of invoices to bill customers for KW usage.

JOB CONTROLS

Procedures, and oral and written instructions.

PRIMARY DUTIES

I. Supervises preparation of invoices:

1. Meets with Meter Tape Gathering Supervisor to obtain tapes for preparing invoices and learn of tapes requiring special work.
2. Assigns tapes, by types, to employees who process tapes and prepare invoices.
3. Notifies employees of tapes requiring special work.
4. Resolves work problems as they arise.
5. Spot-checks work-in-process to assure that schedules are met and that procedure is followed.
6. Checks completed invoices for accuracy.
7. Assigns mailing of completed invoices.

II. Performs related duties:

1. Plans procedures and forms.
2. Recommends adoption of new procedure and forms.
3. Maintains daily and monthly records of Branch activity.

OTHER SIGNIFICANT FACTS

None

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8. YOUR DIPLOMA

You now are ready to tackle all the everyday problems to be faced by the supervisor in writing position descriptions. In its most brief form, to write a position description, you only need:

1. A knowledge of the position,
2. A knowledge of the format,
3. A knowledge of the grade-controlling factors, and
4. A pencil and paper.

While the intended training is at this point complete, we will add a few more 'goodies' to include within the nutshell of this course. The following tricks can make the job a little easier and cut down some on rewriting position descriptions.

1. Use approximate ranges for numbers: in number of people supervised, amount of workload, dollar values, or other numbers used in the description, use examples such as "10 to 15" if the figure is 12 today. Then if it becomes 13 or 11 tomorrow, the description won't be wrong.

2. Avoid naming specific projects: Everyone may know what 'Project X' is, but when it's completed, the description is out of date. Give the type of project, size and scope, level of difficulty and related factors, then when a new project is assigned, the description is still up to date. This goes for form names and numbers too.

3. Use an amendment for minor changes: if there is only one or a few minor changes in a position such as titles, organization changes, or duty assignments, use a Position Amendment rather than doing the whole thing over. A word of caution here --- never use more than two amendments for a position and never use one to upgrade or downgrade a position.

GUIDE FOR THE CLASSIFICATION OF POSITIONS PROVIDING PROFESSIONAL-LEVEL LIBRARY AND INFORMATION SERVICES *

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GUIDE FOR THE CLASSIFICATION OF POSITIONS PROVIDING PROFESSIONAL-LEVEL LIBRARY AND INFORMATION SERVICES *

INTRODUCTION

This guide is to be used for the classification of professional or technical positions concerned with the processing of books, documents, or other information media, and with providing library and information services for scientific, technical, educational, cultural, recreational, or other purposes. Positions covered by this guide are classifiable:

— to the Librarian Series, GS-1410;

— to the Technical Information Services Series, GS-1412; and

— to various subject-matter series (e.g., the Biology Series, GS-401, the Chemistry Series, GS-1320, etc.) when the subject-matter series does not include criteria for evaluating duties and responsibilities related to information services.

Document and information processing, as a field of work, is in a state of flux. This is evidenced by:

(a) the sheer volume of information being generated which has created a need to select, compact, and review material so that the individual user may more readily find what he is looking for;

(b) the variety of information facilities (in addition to libraries) that have sprung up in recent years, such as documentation centers, referral centers, clearinghouses, information centers, etc.;

(c) the evolution of new jobs reflected by titles, such as information specialist, information scientist, documentalist, lit-

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erature analyst, literature scientist, technical information officer, etc.;

(d) the use of electronic computers or other mechanized equipment and devices for the storage and retrieval of data about documents and the continual updating and introduction of new equipment on the market;

(e) changes in curricula in schools of Library Science and the introduction of new programs designated under various titles such as "Information Science Programs."

Differences of opinion exist as to the distinction between the services provided by a library or by the other documentation or information outlets; and between the duties performed by librarians and subject-trained personnel working in the various information services. Because some duties can be performed by either group, it is not our intention to delineate rigid boundaries for these occupations. *Rather, our primary concern is that the classification of positions (a) will be a significant factor in recruiting qualified personnel needed to support the agency's library or information program, and (b) will provide equitable salary treatment for comparable duties and responsibilities.*

SERIES AND TITLE DETERMINATIONS

The series classification of positions covered by this guide will be determined by reference to the definitions published for the Librarian Series, GS-1410; the Technical Information Services Series, GS-1412; and the appropriate subject-matter series. These definitions are published in the Commission's "Handbook of Occupational Groups and Series of Classes" and amplifying material in published classification standards.

Where a decision is not clear-cut, the appropriate series classification should be determined by a consideration of (*a*) the primary qualifications required for the position; or (*b*) the career relationship of the position.

The following, in brief outline, is the structure of series involved in providing library and information services:

1. Positions which *primarily* require a professional knowledge

of librarianship and a broad knowledge of literature, equivalent to that represented by a graduate degree in Library Science, are classified in the Librarian Series, GS–1410. Also included in the GS–1410 series are positions requiring this paramount qualification *in combination* with knowledge of a subject-matter field (e.g., physical science, law, music, cartography); language proficiency; knowledge of machine technology; or with the need for knowledge and proficiency in administration.

2. Positions which *primarily* require a knowledge of one or more broad scientific fields or special subject-matter areas, in combination with a practical knowledge of special techniques, methods, or devices for processing documents and information, and which have their career relationships in the field of documentation and information services, are classified in the Technical Information Services Series, GS–1412.
3. Positions in which the requirement for specialized, professional, scientific, or technical knowledge is paramount, and which have their career relationships in the subject-matter field, are classified to the appropriate subject-matter series, e.g., where there is a continuing requirement for a chemist to work primarily with the chemical literature, the position should be classified to the Chemistry Series, GS–1320.

Positions will be titled in accordance with the published titling structure in the appropriate series. Positions classifiable to subject-matter series for which classification standards have not been published will be titled in accordance with the practices described in the *Introduction to Position Classification Standards.*

OCCUPATIONAL INFORMATION

BACKGROUND

Information is knowledge of a factual kind, or knowledge concerned with qualitative concepts or ideas—usually gathered from others or from any of the various storage media.

Traditionally, *information* has been interpreted as a commodity —for political, social or other considerations. Information generated for one purpose is often useful for quite different purposes. Business, science and technology, government—all are concerned with a world encompassing more and more interrelationships, and the need has become ever greater to provide the decision-maker with the proper information he needs, quickly and efficiently. Information is handled in many different systems, and each system serves many different communities, each with its own needs, interests, and outlook.

The *information cycle* basically includes the creator, the processor, and the consumer of information. Endeavors are underway to develop a unified, systematic approach to join these three groups in a more effective liaison. The ultimate aim is to connect the user, quickly and efficiently, to the proper information and to only the proper information. To be effective, an information system must select, compact and review material for the individual user so that he actually assimilates what he is exposed to, and he is not exposed to too much that is unimportant or irrelevant.

Libraries are a significant link in the information cycle. Additionally, a variety of *other information facilities* closely related to libraries have been established for the purpose of collecting, processing, and distributing documents or data of a specialized nature. Depending upon the specific functions performed, these are designated as information centers, documentation centers, clearinghouses, information exchanges, etc. These information facilities are playing an important role, particularly in support of programs in science and technology. They have been developed primarily to organize and exploit sources of information such as unpublished research reports, journal articles, pamphlets, reprints, and even smaller units of published or unpublished information. In many cases, the staff requires substantive knowledge of the subject matter involved.

ELEMENTS OF LIBRARY AND INFORMATION SERVICES WORK

The elements of work described below may be performed by librarians, by technical information specialists, or by subject-matter specialists. They may be performed in a library or other information facility. *Although there is a certain commonality of functions in these positions, the manner of performing these elements of work will differ or be conditioned by: (a) the mission of the facility; (b) the requirements of users of the service; and (c) the academic background and experience needed to perform the functions.*

(For a more detailed discussion of functions performed by librarians or technical information specialists, see the introduction to the Librarian Series, GS-1410, and the Technical Information Services Series, GS-1412.)

1. *Administering.*—The management of a library or information facility, or a related group of such activities; the coordination of the information elements into an integrated system anticipating user requirements and planning appropriate solutions; liaison with organizations or patrons served by the library or information facility.

2. *Selecting materials.*—Planning the nature, variety, and depth of materials to be included in the information service; determining the needs of potential users, current and future demands; choosing the specific items to be acquired.

3. *Acquiring materials.*—The process of identifying, finding, and obtaining copies of information materials not in the information service activity; implementing the selection process to insure that identified items are purchased, negotiating exchange arrangements, or acceptance of gifts.

4. *Descriptive cataloging.*—The process of identifying a unit of information in order to distinguish it from other items; describing it bibliographically including its format and relation to other items; and organizing and recording the data in a methodical arrangement.

5. *Subject analysis, including classifying, assigning subject headings, and indexing.*—The detailed examination of source materials to understand the intellectual content, to identify and select significant concepts and characteristics to be recorded as reference points for use in future retrieval operations, and to organize them in a methodical arrangement.

(*Note:* The depth of analysis required is dependent upon the purposes that the analysis is expected to serve. One of the most important factors which influences the level of analysis attainable is the analyst's level of understanding of the subject matter. Analysis "in depth" requires a corresponding depth of understanding of the discipline covered in the source materials by a person trained in the scientific, technical, or specialized field involved. See the discussion of this function in the Technical Information Services Series, GS-1412.)

6. *Abstracting, extracting and/or annotating.*—The summarizing of a unit of publication so as to present in concise form the needed bibliographic and/or subject information.

7. *Performing reference work.*—Meeting the needs of users by joining a knowledge of the bibliographic and subject resources of the information service to an analysis of the specific information requirement; making the materials available to users as sources of information, if the materials prove inadequate, tracing the required information elsewhere. Includes also the location and identification of authoritative sources of information and documentation, and referral of the requester to these sources when appropriate; and the systematic release and transfer of information and documentation based on security classification, proprietary or ethical consideration, need-to-know, or other authorization.

8. *Literature searching.*—The systematic, comprehensive, or exhaustive search for information bearing on a specific problem or subject, performed as a special service for specialists engaged in research or other scientific, technical, or specialized work. It is considered an intermediate stage between reference and researching with information.

9. *Researching with information.*—Solving research problems without recourse to experimentation by gathering, analyzing, and interrelating information from a combination of sources. (The initial phases of this process may be very similar to the work involved in literature searching.)

10. *Compiling bibliographies.*—Locating, identifying, and compiling lists of books, articles, pamphlets, technical materials, etc., related by subject, bibliographic and/or user criteria.

11. *Translating.*—The converting of one natural language or its symbolic form into another natural language with complete preservation of the meaning of the original. This is done by giving attention to the use of the proper idiomatic phrasing, syntactical structure and words that accurately reflect the wording and meaning of the original.

12. *Information interpreting.*—Evaluating and elucidating the

significance, pertinence, and relevance of specific units of information on the basis of detailed analysis and deep subject competence.

13. *Information scouting.*—Formal systems or specific programs for locating, gathering, and screening of new unrecorded, not yet recorded, and newly recorded data and information from special sources such as personal contacts, conferences, meetings, Government agencies, laboratories, clinics, and interviews.

14. *Transmitting and copying.*—The conveying and communicating of units of data and information by manual, electronic, mechanical, and other means.

15. *Converting into machinable form.*—Translating a unit of information into a symbolic form so as to be suitable for storage, identification and retrieval by mechanical or electronic instrumentation.

16. *Developing information systems.*—Devising integrated schemes for coordinating all required elements of the information cycle in order to make available all pertinent materials to all potential users in the most usable form with the least distortion of subject content and in the shortest time.

17. *Investigating machine applications.*—Developing systems, or adapting or exploring adequacy of existing systems, which utilize mechanical and electronic instrumentation to perform specific information functions in an integrated documentation or information system.

Certain elements of work associated with document and information processing have not been included in the above listing, such as (*a*) research into information science and theory; (*b*) development of specialized equipment for document and information handling; and (*c*) administration of agency or departmental programs for technical information systems, including a broader range of activities in the information cycle—such as creation, technical writing and editing, publication, dissemination, interpretation, and utilization of the information. See the introduction to the Librarian Series, GS-1410, and the Technical Information Services Series, GS-1412, for the definition of positions which are excluded.

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INFORMATION MEDIA

Information is stored in the following media: (*a*) printed publications or manuscripts—such as books, reports, journals, etc., (*b*) film—and the methods of photography, (*c*) wax or plastics—as used for the recording of sound, (*d*) nearprint methods—such as the offset plate, the ditto master, and the mimeograph stencil, (*e*) magnetic—wherein digital, video, and audio signals can be recorded on tapes, disks, wire, cards, drums, etc., and (*f*) punched cards.

Information resources are diverse in character, e.g.,

(a) Formal publications, including: (1) monographs—trade books, textbooks, reference books, research reports, catalogs, pamphlets, paperbacks, etc.; and (2) serials—periodicals, official publications, technical progress reports, monographic series, and newspapers;

(b) Audio-visual materials, including maps, recordings (music), non-musical recordings, microreproductions, motion pictures, paintings, photographs, etc;

(c) Informal publications, including symposium papers, internal technical reports and documents, and local technical papers;

(d) Unpublished information, such as laboratory notes, memorandums and working papers;

(e) Intelligence sources, including information regarding research in progress, biographical information about the special areas of competence of technical personnel; information about special facilities and equipment for use in special projects.

PROBLEMS ASSOCIATED WITH INFORMATION SERVICES WORK

1. *The discipline-mission duality.*—Information generated for one purpose is often useful for quite different purposes. This causes a difficult problem of classification: according to what fundamental scheme should a segment of knowledge be labelled so as to make it available to all who need it, yet avoid redundant identifying, abstracting, and announcing.

The growing importance of interdisciplinary fields has caused some duplication in information systems relating to the various disciplines. However, much more overlapping has resulted from the extraordinary growth of mission-oriented science. For example, in the exploration of space, the work itself falls into almost all the traditional disciplinary fields—chemistry, physics, astronomy, biology, etc. The information collected by these diverse scientists may be collected, disseminated, and controlled in a mission-oriented (in this case, space) information system.

The discipline-mission duality occurs in many fields of endeavor including the social sciences, military science, medicine, etc. For the benefit of the scientist working in the basic discipline, the information contained in the mission-oriented system must also appear in the discipline-oriented system. Obviously, the situation is reciprocal: in most cases the information originating in the discipline-oriented system must also find its way into the mission-oriented system.

2. *Development of information-handling technology.*—The growth of published information has fostered the invention of many new handling and searching techniques and concepts. Best known are the retrieval systems based on automatic machinery. In addition, there are new ways of listing titles; of gaining access to the literature (citation indexes); of preparing abstracts or translations (by machine); of compacting the physical size of the record (microfilm and microfiches); of duplicating printed material.

The mechanical devices are divided into two types—graphical and digital. The former handle photographs of documents directly, and they require human interpretation (i.e., reading) to retrieve the information contained. The devices which handle data about documents in digital form cover a wide spectrum.

Because most of the schemes and devices for handling information are so new, their limitations are still not fully understood; in particular, it is not usually appreciated that the new systems generally produce only tangible documents (books, films, monographs, etc.) which must then be processed manually by librarians or other specialists in the field.

3. *International aspects of information.*—The international aspects of information create problems. Professional, scientific, and technical personnel have through the years developed rather

effective methods for overcoming their political and geographic isolations—they have formed international unions, they exchange information materials, they hold many international meetings. But the burgeoning of science has complicated the workings of the international instruments that have grown up to help scientists in one country exchange views with those in another. All the problems that beset domestic communication beset international communication, but with certain additional complications. Most obvious is the diversity of languages.

DEFINITIONS

Definitions of terms used in library and information services may be found in such publications as the "American Library Association Glossary of Library Terms," or in special agency publications such as the "Glossary of STINFO Terminology," compiled by the Air Force Office of Scientific Research. For convenience of users, the following definitions are included in this document.

Descriptor.—An elementary term. A scheduled term used in machine indexing. A simple word or phrase used as a subject. An index entry used to characterize a document.

Discipline oriented.—When a subject area is all or a clearly defined part of a recognized scientific or engineering discipline which has its own literature or professional traditions, it is called discipline oriented.

Document.—An original or official paper relied upon as the basis, proof, or support of anything else—in its broadest sense including any writing, book, or other instrument conveying information.

Information facilities.—

(Note: In view of the fluid nature of these occupations, the purpose of these definitions is not to standardize the nomenclature for or the functions within the various library and information facilities. Definitions given reflect information processing facilities at this time. The functions performed or services provided may change with the introduction of new information systems or information-handling technology.)

Clearinghouse.—An organization that collects and maintains records of research, development, and engineering being planned, currently in progress, or completed, provides documents derived from these activities, and provides referral services to other sources for information relating to these activities.

Data center.—An organization primarily for acquiring, processing, storing, retrieving, and disseminating data, e.g., a center for processing the raw data received from artificial satellites, or raw data received from oceanographic research. The data processing done at a data center may or may not include evaluation.

Documentation center.—An organization primarily for selecting, acquiring, storing, and retrieving specific documents; and which, in addition, announces, abstracts, extracts, indexes, and disseminates documents in response to requests (for secondary distribution) expressed as accession numbers, subjects, titles, authors, sponsoring agencies, or contract or grant numbers, etc. The output of a documentation center consists of the documents received, or copies and microcopies of them, indexes, bibliographies, catalog cards, announcement bulletins, and the like.

Information center.—An organization primarily for judging the value, validity, and completeness of the information derived from experiments, research, development, test, and applications; and for summarizing and reporting such evaluations.

Library.—An organization concerned with selecting, acquiring, organizing, recording, preserving, retrieving, and disseminating informational materials. Includes the services of a staff trained to provide and interpret such materials to meet the informational, educational and/or recreational needs of its clientele. Some libraries include one or more of the services described in the other types of information facilities. (See the more detailed description of library functions and services in the introduction to the Librarian Series, GS-1410.)

Referral center.—An organization for directing searchers for information and data to suitable sources such as libraries, information evaluation centers, documentation centers, and individuals. A referral center does not supply data or documents.

Mission oriented.—When a subject area is a specific activity of special interest to several departments or agencies, and therefore an area which requires an interdisciplinary approach, the system or activity is called mission oriented (e.g., space exploration).

Subject.—A body of closely related knowledge; usually a recognized discipline of study or learning, e.g., mathematics, chemistry, etc.

Subject field.—A comprehensive group of related subjects, e.g., physical sciences, social sciences.

Subject heading.—A word or group of words indicating a subject under which all material dealing with the same theme is entered in a catalog or a bibliography, or is arranged in a file.

Technical information.—Information related to the study, practices, methodology, or procedures involved in any art, science, trade, or profession. Highly specialized information.

Thesaurus.—A collection of words, as of synonyms and antonyms, classified by "concept"—comparatively broad clusters of meanings, rather than by alphabetical or other characteristics. In documentation, the term "thesaurus" is sometimes used to designate a schedule of authorized subject headings, arranged so that like words are grouped together and appropriate "see" and "see also" references are specified.

GRADE-LEVEL EVALUATION PLAN

EVALUATING SUPERVISORY POSITIONS

This guide applies to the nonsupervisory aspects of professional-level library and information services positions. Many positions covered by the guide include responsibility for the supervision of a subordinate staff. In many situations, the presence or absence of supervisory responsibility will not, in and of itself, influence the grade level of such positions. However, for positions involving supervision of a staff of professional, technical and administrative employees, Part II of the Supervisory Grade-Evaluation Guide should be used in determining (*a*) which positions are supervisory in nature and (*b*) the grade level of the positions. For professional-level positions involving supervision of a staff made up solely of subprofessional and clerical employees, Part I of the Supervisory Grade-Evaluation Guide should be used in evaluating such supervisory duties. Thus, both supervisory and nonsupervisory duties should be evaluated with the final determination as to use of a supervisory or nonsupervisory title, and the grade level, based on those assignments that require materially higher qualifications and that constitute the paramount responsibility.

FACTORS FOR EVALUATING THE GRADE LEVEL OF NONSUPERVISORY POSITIONS

Three factors are considered significant in determining the grade level of positions covered by this guide. They are:

Factor 1—*Scope of assignment*

Factor 2—*Level of responsibility*

Factor 3—*Knowledge requirements*

A further discussion of each factor, with instructions for assigning degrees under Factors 1 and 2, and levels under Factor 3, follow. A grade-level conversion chart appears on page 38.

Factor 1—Scope of assignment

This factor reflects the scope and difficulty of individual assignments. Criteria for determining distinctions in levels of difficulty are expressed primarily in terms of:

a. the scope, coverage, and size of the collection with which the assignment normally deals; the clientele served; and the difficulty of materials in the collection;

b. the difficulty of the functions performed in terms of the breadth and/or depth of the assignment, and the subject, language, or bibliographic competence and experience required;

c. the extent of participation in development of programs, plans, policies, procedures, etc.; or other administrative or staff assignments.

Three levels of difficulty—"A", "C", and "E"—are described in order of increasing complexity or difficulty. Degrees "B" and "D" are not described but may be used when appropriate. The use of degrees "B" and "D" is appropriate when a position clearly falls between two of the degrees; or when, for example, a position compares with degree A in some respects and degree C in others, the position may be evaluated at degree B.

Factor 1 (continued)

The criteria under this factor must be applied carefully in the context of the position so that credit is not given for features that do not contribute to the difficulty of the work performed.

For example, degree C lists a number of characteristics which indicate work "above average" in difficulty. One of these is the scope or coverage of the collection with which the assignment is concerned. The *scope or coverage of the collection is significant, however, when it contributes to the difficulty of the work.* To illustrate: Many different tasks are performed in a collection established for research purposes (as described at degree C). Obviously, routine or repetitive tasks would not be evaluated automatically at degree C because they are performed in a research library. Only those tasks which are made more difficult because of the nature of the collection (such as the selection of materials, cataloging, reference service) *and* which meet other characteristics of the degree C level should be evaluated at degree C.

Similarly, other features which typically indicate a broader scope or more difficult assignment, such as the clientele served or the difficulty of the materials in the collection, are significant only when they contribute to the difficulty of the position.

Examples of work assignments for each degree under Factor 1 are provided in the appendix to the guide (beginning on page A–1). These are not detailed job descriptions. Rather, they are intended to illustrate work situations which meet criteria established for the degree (e.g., examples at degree A illustrate assignments of "average" difficulty). In most instances, examples in similar functions or services are given to illustrate progression to each degree. These are not intended to be all-inclusive of the various work situations covered by this standard. Thus, the absence of an example for a particular work assignment at one of the degree levels does not preclude use of the standard in evaluating the position.

*Degree A**

This level includes—

1. Assignments of average, normal, regular difficulty relating

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* *Note:* See illustrative examples of work assignments at Degree A in the attached appendix, starting on page A–1.

Factor 1, Degree A (continued)

to one or more functions in a library or information facility, such as cataloging, indexing, reference service, literature searching, etc.;

2. Clearly defined segments of more difficult work to provide training for higher level assignments; *or*

3. Serving as the individual in charge of a library or information service which is restricted in scope or coverage.

Assignments at this level require training and competence—

a. in the theories, principles, and techniques of librarianship; *or*

b. in one or more professional, scientific, or technical disciplines or subject-matter areas. Some assignments require limited proficiency in foreign language(s); or a knowledge of specialized library, documentation, or other information handling techniques, methods, etc.

The criteria described in items (1) through (4) are characteristic of assignments of normal or average difficulty. These are illustrative, but not all-inclusive:

(1) Some assignments include performance of one or more functions within a library or information service *which are considered of average or normal difficulty because of the limited scope, coverage, or size of the collection.* For example, the assignment may deal with:

— A *general* collection including primarily nontechnical or fictional material, but which may also include a standard collection of reference materials in broad subject areas. Such a collection is typically used for reading or recreational purposes by the general public, military personnel, hospital patients, elementary or secondary school pupils. The collection may be an extension, school, bookmobile, or small branch or local library, or may be part of a larger specialized collection.

— A *reference* collection specialized in one subject and related subjects, or a segment of a broad field such as law. Such a collection includes basic reference tools as well as major

Factor 1, Degree A (continued)

journals, texts and monographs in the latest or best editions. The collection is not comprehensive, but may contain some primary source material to meet the needs of the parent organization. The collection typically services a special interest group for educational or vocational purposes. It is used by a specialized clientele, by professional, administrative or technical personnel, or by college undergraduates. It may be a small local library, or a segment of a larger specialized or general library.

— A *research* collection of technical documents, periodicals, books or other materials *limited to a narrow segment* of a subject or field of interest. It includes sufficient publications so that extensive investigation and research can be pursued. The collection typically is used for educational, research or development purposes by scholars, scientists, legislators, military officers, educators, administrators, or other highly specialized professional or technical personnel, both within and outside the Government. The material may be in a small local library, but usually is part of a larger collection in a research or academic library, or in a documentation or evaluation center. (Duties are assigned in connection with a collection of this type usually, but not always, to give advanced training for work with a more extensive collection or a more intensive knowledge of a subject area or field of interest.)

(2) Other assignments at this level are concerned with a collection of library materials, technical documents, or other media which is extensive in scope, coverage, or size, *but the duties performed have some limitations or restrictions.* Such work assignments typically:

— Have predetermined limitations restricting the subject areas covered, depth of analysis required, or language proficiency needed;

— Relate to a narrow or nontechnical field of interest;

— Include segments of more difficult work or assignments which are repetitive and recurring, follow established rules, standards or patterns, or accepted practices, or use of

Factor 1, Degree A (continued)

standard tools (e.g., analyzing more routine research reports, or preparation of simple abstracts).

(3) Except for positions providing training for more difficult work, assignments at this level *seldom* involve (*a*) detailed subject analysis of literature in advanced fields of knowledge, extensive searching of original source material, interpretation or evaluation of research literature, or other tasks requiring highly specialized subject, language, or bibliographic competence; (*b*) proficiency needed to read and process technical documents in a foreign language area, such as Romance, Slavic, or Oriental language areas; or (*c*) administrative, staff, or other elements of difficulty which are considered above average.

(4) Serves as the individual in charge of a library or information service which is restricted in scope or coverage, and personally performs work of the degree A level of difficulty.

*Degree C**

This level exceeds degree A in breadth or depth of assignment, or both, and regularly encompasses work of more than average or normal difficulty. This level includes:

1. Performance of duties as a "*specialist*" in a functional area, in a subject, foreign language(s) or geographic area, or in any combination thereof;
2. Performing broad assignments, special projects, or staff studies relating to program planning, management, surveillance, or coordination of services; or
3. Serving as the individual in charge of an information service or library, or a subdivision of a larger facility, which provides comprehensive and selective reference in a specialized subject area or broad areas of general interest.

Some assignments may be portions or phrases of more extensive programs described at degree E when they meet this level of difficulty.

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* *Note:* See illustrative examples of work situations at degree C in the attached appendix, starting on page A–5.

Factor 1, Degree C (continued)

Assignments at degree C require specialized professional or technical experience and proficiency —

- a. in the particular function, services, programs or projects involved;
- b. in a subject area or field of interest which is extensive in coverage or penetrating in depth; *or*
- c. in the application of the theories, principles, and techniques of librarianship.

Some assignments require a high degree of competence in reading and processing of technical material in several foreign languages; or in the use of various documentation systems, or automatic data processing equipment in improving efficiency of the documentation service.

Assignments of more than average difficulty are characterized by features described in items (1) through (5). These features are significant in evaluating degree level, however, *only when they contribute to the difficulty of the position.* The criteria specified below are not all-inclusive, but rather are intended to be illustrative of this level:

(1) *Assignments at degree C relate to collections which are broad in scope and/or penetrating in coverage.* For example, the assignment may deal with:

— Collections established for *research* purposes and used by scholars, scientists, attorneys, educators, military officers, or other highly specialized clientele. Such collections are comprehensive or highly selective in coverage, including current and retrospective material collected on an international basis. When the collection is extensive in size covering many subjects or fields of interest (such as the large national, departmental, or academic libraries), assignments typically relate to a subject or language area. When the collection relates to the particular mission of a local organization (such as a research laboratory), assignments are oriented to one or more functions of the mission and cover broader subject areas.

Factor 1, Degree C (continued)

— Collections of *research and development* reports, technical journals, patents, or other unpublished information or intelligence resources. Such collections typically are national control points for dissemination of documents or information contained in these documents. They service the scientific and technical community both within the Federal Government and in outside organizations (such as universities and private industrial organizations) on a national or international basis. When the collection is extensive in size covering many subjects or fields of interest (such as the national documentation centers or clearinghouses), assignments typically relate to a subject or language area; or to special areas of mission-oriented subject fields.

— Collections established for *reference, educational, vocational, cultural, and morale purposes,* and used by administrative, professional, or technical personnel (including military personnel), by college students, or by other special interest groups. Such collections at this level may be (*a*) *specialized in nature covering a subject field* (e.g., the social sciences) and some related subjects from other fields, and containing technical material, but is not necessarily comprehensive in coverage; (*b*) *general in nature,* but covering a number of subject fields and including primary source materials; or (*c*) *general in nature* covering a full range of subjects, in all reading levels, and presented in a variety of both printed and audio-visual materials.

(2) *To support the agency's research or program requirements, assignments include performance of one or more functions as a "specialist." Such duties require application of either (a) a penetrating knowledge of a particular subject (e.g., chemistry) and related subjects; or (b) a broad but not necessarily intense knowledge of a subject field (e.g., the physical sciences or social sciences); or (c) special bibliographic competence of a librarian in a complex of subjects. Some require proficiency in two or more foreign languages.* For example, assignments include peformance of duties such as those listed below:

— Selects or recommends acquisition of materials which are

Factor 1, Degree C (continued)

comprehensive or highly selective in coverage, including current and retrospective material collected on an international basis, and containing both primary and secondary source material.

— Screens, reviews, and selects incoming scientific and technical documents for pertinency to the agency mission and for importance in advancing current research and development programs.

— Catalogs, classifies, and assigns subject headings to difficult library materials.

— Analyzes research documents, assigns subject headings or indexes in depth.

— Answers a wide range of selective or comprehensive reference questions when the information is not included in catalogs or covered in the usual bibliographic controls; requires the use of material not ordinarily considered to relate to the field involved.

— Performs literature searches requiring the searching of extensive original source material and general publications, such as society and experimental reports, legislative material, theses, Government documents, and, in some cases, old and rare publications, as well as articles, monographs, periodicals, and general works which bring together and discuss the findings of individuals. Some of the material may be in foreign languages.

— Interprets or evaluates information related to the mission of the organization, requiring subject competence to critically evaluate experimental data, or interpret inconsistent or unexpected results.

— Edits or prepares analytical abstracts of scientific, technical, or other specialized material.

— Prepares comprehensive or selective bibliographies in particular or specialized fields of knowledge (e.g., music, literature, history, biology) or relating to a specialized field of interest or the mission of the organization.

Factor 1, Degree C (continued)

- Reads or translates difficult library materials or scientific or technical information in two or more foreign languages.

(3) *Work is done in connection with difficult materials.* For example:

- Serials and Government publications presenting particular language or bibliographical problems such as those issued by international and/or scientific and research organizations.
- Material dealing with new fields of knowledge requiring an understanding of abstract ideas and theoretical concepts, or a need to keep informed of and recognize changes, advancements, and new developments in the field.
- Old and rare books requiring an extensive knowledge of the history of books and printing.

(4) *Work involves staff assignments or special projects requiring participation in formulating policies, developing program plans, coordinating staff activities, or recommending new or revised criteria, methods, or techniques.* For example:

- Participates in the development and recommendation of new rules for cataloging, or the revision of existing ones. Suggests or makes expansions, revisions, adaptations, or additions to existing classification schedules and new subject heading lists.
- Participates in the formulation of searching strategies, or in the development of a standardized vocabulary of terms, for a national large-scale information service (such assignments may be portions or phases of more extensive programs described at degree E).
- Applies techniques for utilizing automatic data processing equipment to a particular function or activity in a large library or documentation service with a view to improving the efficiency of operations.
- Participates in development of plans of service for previously unserved or under-served groups.
- Participates in the planning and development of new library facilities (e.g., branch libraries and bookmobiles) or in the

Factor 1, Degree C (continued)

reorganization or closing of existing ones. Participates in the reorganization of a library system applying new concepts in library management and services.

(5) *Serving as the official in charge of a research or reference collection when the employee personally performs work of the degree C level of difficulty.* Such a collection may be a small independent library, or a segment of a larger specialized or general library.

*Degree E**

Assignments at this level substantially exceed degree C—

1. in the breadth of responsibility for formulating, developing, coordinating or directing programs, policies, techniques, or operations; *or*
2. in the understanding, use, and dissemination of research information in complex or advanced fields of knowledge.

Assignments at this level require extended and highly specialized experience—

(a) in the application of the theories, principles, and techniques of librarianship in a general library system or research libraries with national significance or impact; or

(b) in an intensive and extensive subject-matter area to analyze, interpret, evaluate, or develop information, or to develop techniques, methodologies, or working tools of a highly specialized information service with national significance or impact.

Assignments characteristic of degree E are described in the following items (1) through (3). These are illustrative criteria, but not all-inclusive.

(1) Assignments at this level are typically concerned with collections which are broad in scope *and* penetrating in depth; with

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* *Note:* See illustrative examples of work assignments at degree E in the attached appendix, starting on page A-11.

Factor 1, Degree E (continued)

large-scale operations or programs of national significance and impact. For example, the employee may deal with:

— A *research* collection of *national significance* relating to a *subject complex* such as agriculture, medicine, aerospace, etc., typically used for research purposes by scholars, scientists, educators, military officers, legislators, or other highly trained and specialized personnel.

— A *general library system* including an extensive *reference* collection in the *various fields of knowledge* some of which may be used for research purposes. The work requires extended experience in the application of the theories, principles, and techniques of librarianship.

— A large departmental library with a *research* collection of national significance related to a variety of missions, plus selective reference collections in other related specialized, scientific or technical areas.

— A *research* collection serving laboratories with programs of national significance. Collections are extensive in scope *and* intensive in depth of coverage; service the work of scientists and engineers of national prominence; and attract clientele from all over the Nation interested in utilizing these collections for their own purposes. Bibliographies and publications prepared are cited as authorities in support of programs of national interest. The methods or techniques used may serve as models for other libraries, including graduate schools of library science in their instructional programs.

(2) *Duties include the provision of consultative services and advanced research information embracing broad subjects or programs of the agency served, requiring application of extended experience in an intensive and extensive subject-matter area.* For example:

— Prepares analytical, evaluative state-of-the-art reports requiring an understanding and interpretation of basic research problems, new hypotheses, concepts and techniques,

Factor 1, Degree E (continued)

or major advancements in the subject field (e.g., life sciences).

— Examines, compares, and makes a critical evaluation of controlling authorities relating to complex legal research problems, determining the precise authorities which will resolve a legal problem and/or develop a line of cases which will establish the weight of legal precedent testing it throughout for validity and pertinency.

(3) *Performs original development work in one or more functions in a large-scale operation, requiring application of extended experience in librarianship or documentation techniques and/or highly specialized subject-matter areas.* For example:

— Plans and develops a centralized selection, acquisition, or cataloging service for an agency library system or a library system which includes many branch libraries and outside book collections (e.g., an agency library system serving military personnel within the United States and overseas; a library system which operates on a national scale; or one which services a heavily populated metropolitan area).

— Develops a special classification and subject heading schemes, or a standard vocabulary of terms such as thesauri or lists of descriptors, to control a collection of research documents and reports of national significance; or develops and expands authoritative subject heading lists for use by libraries on a national scale.

— Formulates or develops new program policies, plans or operations, such as planning and developing programs and techniques for utilizing automatic data processing equipment in a large-scale library or information service; planning extensive programs for retraining of employees when converting operations to an automated system.

Factor 2—Level of responsibility

This factor reflects the level of responsibility at which the position operates. It includes consideration of the following matters:

1. availability of guidelines and originality required—including

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Factor 2 (continued)

the extent to which the incumbent's assignments are governed by established policies, practices, or operating guides, and the use of standard tools; the degree of judgment required in interpreting and applying such guides; and the originality required in developing programs, policies, procedures, etc.;

2. the control exercised over the work by the supervisor; and the extent to which the employee is authorized to make recommendations to commit his organization;

3. the nature of person-to-person contacts.

Three degrees—"a", "c", and "e"—are described in order of increasing responsibility. Degrees "b" and "d" are not described but are intended for use when appropriate. The use of degrees "b" and "d" is appropriate when a position clearly falls between two of the described degrees; or when, for example, a position compares with Degree "a" in some respects and with Degree "c" in others, the position may be placed at Degree "b".

Degree a

Responsibility at this level is limited. Work is performed under direct supervision or well-established guidelines; or employees are in training for higher level duties. Guidelines are well-established and do not require detailed interpretation based on experienced judgment.

1. *Availability of guidelines and originality required.*—Work at this level is performed within a framework of specific operating instructions and procedures; is covered by well-fixed or clear-cut guides, policies, or precedent decisions; and follows standard applicable tools and well-established guides and practices, or agency-generated manuals and instructions for cataloging, assigning subject headings, indexing, etc. There are few opportunities for use of originality in adapting or modifying guidelines.

The following examples are illustrative, but not all-inclusive:

— Selection or acquisition of material requires limited use of judgment. Items clearly fall within the selection policy for additions to the collection; or recommends sources for

Factor 2, Degree a (continued)

acquisition when basis for selection of dealers is clearly outlined.

— Decisions pertaining to cataloging, classification and assignment of subject headings are limited to material for which the choice of entry and rules to be followed are clearly established, additional bibliographic information may be readily located, and the determination of finer subdivisions of classification is not required.

— Searches for information are confined to those which may be obtained from standard reference aids, e.g., indexes, publishers' catalogs, directories, encyclopedias, bibliographies, trade journals, etc.

— The preparation of bibliographies is confined to sources of information which are readily located and to limited bibliographic descriptions.

Decisions made or actions taken deal recurrently with similar situations or problems. Choice of action is restricted to limits defined by accepted practices. Employees are responsible for the accuracy of factual information.

2. *Supervision received.*—Routine or repetitive duties at this level are performed under the technical supervision of a higher-grade specialist in the same area of competence. The supervisor provides instructions on procedures and techniques to be used and specific instructions on assignments of an unusual nature. Assignments typically are accompanied by a discussion of the purpose and scope of the work and any problems which may be anticipated. Advice and guidance is available whenever controversial or unusual questions or matters are involved, or whenever guides and precedents are not applicable, or their applicability is not clear. Work is reviewed or revised, as required.

An employee in charge of a small or limited library, bookmobile, extension service, document collection, or other information service may operate independently or be under administrative supervision locally. In such situations, the employee receives specific technical guidance and directions from a librarian or higher-grade specialist in the same area of competence in another location or at a higher level of authority. Specialized services, such as selection, acquisi-

Factor 2, Degree a (continued)

tion or cataloging of materials, are typically provided by the parent library or at a central location. Policies, objectives, and methods for operation of the library or information service are well-established.

When assigned increasingly difficult duties to provide training for higher level functions, work assignments are selected to provide breadth or depth of experience. Depending upon the nature of the assignment, the supervisor may review the judgment aspects of the work through discussions at various stages of completion. Completed work is reviewed in detail for adherence to agency policies and supervisory instructions, completeness, thoroughness of research, soundness of judgment and selectivity in the treatment of the subject matter involved, and evidence of an understanding of the requirements, concepts, and techniques of the higher level duties.

3. *Personal contacts.*—Contacts at this level are typically to maintain cooperative working relationships in obtaining and providing information. This includes contacts within the library or information service, as well as contacts with the clientele of the library or information service.

Occasionally, some employees participate in informational programs, e.g., book talks or other presentations to the general public or to children, young adults, or other interested groups.

Degree c

This level calls for full performance, a high degree of skill, and use of experienced judgment within the specific functional, subject matter, language, or other areas of work assigned; and an alert, *intelligent interest* and recognition of changing trends and literature resources in the scientific, cultural, and political fields. General technical guidance is provided either locally or by a parent organization.

1. *Availability of guidelines and originality required.*—Assignments are performed within the limits of the objectives established by the organization having program responsibility. These objectives and the *general* means of their accomplishment are set forth in various forms, such as policy statements, delegations of author-

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Factor 2, Degree c (continued)

ity, procedural manuals, or operating instructions. This is in contrast with Degree a where the work performed follows well-established or specific guides and practices.

To accomplish the specific duties assigned, employees at this level (*a*) must be familiar with extensive reference sources requiring considerable selectivity in the use of source material; (*b*) must be resourceful in finding materials or information that requires extensive searching within the library or information facility, or in outside sources such as other libraries, information centers, government agencies, or private organizations; (*c*) must possess a full understanding of library or documentation techniques, methods and tools, and use seasoned judgment in skillfully applying, interpreting, adapting, and modifying these guidelines and techniques to meet specific needs.

The following examples are illustrative, but not all-inclusive:

- — Selection and acquisition of materials require good judgment and discrimination in the interpretation and application of acquisition policies to maintain a comprehensive and well-balanced collection.
- — Descriptive cataloging, classifying, and assigning of subject headings demands extensive knowledge and discriminating use of a variety of reference sources and tools; extensive and critical searching for sources of information; and the exercise of experienced judgment in determining the cataloging principles which apply, and the extent of subject analysis and the fineness of classification which are necessary to reflect subject interests and emphasis of the parent agency or information service.
- — Reference and literature searching requires selective judgment in the use of a variety of reference sources and tools; in extensive and critical searching for sources of information; in the evaluation of authoritativeness, timeliness, and relevance of specialized information on a specific topic, issue or problem; in the use of material not ordinarily considered to relate directly to the field involved; or in locating, selecting, and organizing information in publications not included

Factor 2, Degree c (continued)

or inadequately covered by the catalog or usual bibliographic controls.

— Selecting, analyzing, and organizing descriptors and identifiers for the most efficient retrieval of information by electronic data processing equipment requires judgment in applying the general concepts and technical interpretation of a Thesaurus of Descriptors, together with the theoretical concepts and technical scope of the discipline involved.

— In compilation of special bibliographies, experienced judgment comes into play in determining the scope of the bibliography, e.g., geographical or time limitations, the selection of sources to be consulted, and of references to be included.

— Administrative responsibilities of considerable complexity require experienced judgment in applying a broad knowledge of library management, budget, and policy determinations, and in program implementation and evaluation.

2. *Supervision received.*—Most employees work under the general technical supervision of a unit or section head. Assignments are given with general instructions as to objectives and policy, methods and techniques to be used. The supervisor, or a higher-grade employee, is available for consultation and advice on interpretation of rules and policies, or coordination of activities. Subject specialists, who may be located within or without the library or information facility, may provide guidance when needed.

Decisions requiring experienced judgment are made within the bounds of delegated authority, e.g., on matters within the scope of the employee's language and/or subject proficiency; or in determining methods of locating or retrieving required information and in the methods for presenting such information. The employee must be able to discern nonroutine situations which require special attention or policy decisions, and refer such to the proper authority for action. Depending upon the assignment, completed work may be reviewed for technical accuracy; may be given a cursory review for consistency with agency regulations; or may be reviewed and evaluated on the basis of end results.

Employees who perform advisory, coordinating, or administra-

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Factor 2, Degree c (continued)

tive duties in a library system, or major information service, at this level work under the general technical supervision of a supervisor who has overall responsibility for the function. They make recommendations on developing the collections, and suggest changes in types of service, extent of service, and technical and administrative policies. Librarians in charge of an independently operated library or branch library normally receive technical guidance in library matters from a coordinating office on a higher level of authority. The librarian uses judgment in coordinating operations within stated goals of the library system or the parent agency, determines the pattern of organization of the collection, and provides services subject to concurrence by the parent organization. End results of the work accomplished are reviewed.

3. *Personal contacts.*—Personal contacts at this level are significant. Contacts are primarily to establish and maintain cooperative work relationships to provide, obtain, or exchange information. Contacts are typically with clientele of the library or information service; with the staff of other library and information facilities; or with State, local, or private industrial organizations.

Some employees work closely with dealers, donors, and exchange sources in the acquisition of materials; others are responsible for establishing necessary contacts within the community or organization served to promote or insure the usefulness of the library or the effectiveness of the information service.

Some employees attend seminars and meetings of professional and technical groups or organizations for the purpose of keeping current with scientific and technical developments; or they attend and participate in professional associations concerned with improving methods and techniques of information services; or they may be required to represent the organization served at meetings or conferences concerned with library and information services.

Degree e

This level includes positions of expert consultants and technical advisers who are recognized for their outstanding competence,

Factor 2, Degree e (continued)

serve as authoritative sources of information, and function as leaders in their program.

1. *Availability of guidelines and originality required.*—Originality, initiative, and resourcefulness are prime requirements at this level. In contrast to Degree c, which covers the interpretation, adaptation, or modification of general instructions or guidelines, there is:

— Responsibility for the use of original and constructive thinking in development of program policies, plans, or objectives, or in the organization of library or information services; or for the use of initiative, ingenuity, and imagination in devising new approaches, methods or techniques for accomplishment of desired objectives; or

— A greater need for independent analysis, interpretation, and evaluation of highly complex, controversial, or abstract information; or a deeper understanding of the intellectual processes associated with cataloging, classification, indexing, storing, or retrieval of documents and greater insight into the patterns of usage of the literature; or

— A greater need for use of seasoned and experienced judgment in the adaptation of existing techniques, methods, or operations to novel or unprecedented problems or situations.

Guidelines consist of enabling statutes, policies formulated by the governing agency, programs developed by the director of the library or information service, or other regulatory and directive material, standards, systems and procedures, or the principles of library administration.

2. *Supervision received.*—Employees function under administrative supervision with considerable freedom from supervisory control over sequences of assignment, planning and organizing details of work, or deciding methods to produce a given result. Superior discusses overall policies and plans and provides administrative direction with regard to policy matters.

As the technical expert, the incumbent of a position at this level resolves most questions or situations that arise. He is held accountable for formulating and executing plans and procedures,

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Factor 2, Degree e (continued)

with full technical responsibility for interpretation of findings. Work is reviewed primarily for overall effectiveness and compliance with general policies and procedures. Only technical matters affecting agency policy, or of far-reaching import, are referred to higher levels for decision or review.

When serving as a subject specialist with responsibility for preparing analytical, evaluative state-of-the-art reports, the employee's scientific and technical results, conclusions and judgments are accepted as valid. Work is not subject to regular review for scientific and technical accuracy. Spot review of completed work (which may be in the form of formal correspondence, reports, or monographs) is primarily for the professional information of the supervisor, rather than as a critical review of the technical and scientific accuracy and validity of the work performed.

Employees in charge of an independent library typically work under administrative supervision only. They may direct the work of one or two professional and several nonprofessional employees. They have responsibility for determining the scope of collections, including approval for purchase, the types and extent of service, technical and administrative policy, and operating procedure, according to the needs of the organization served. They develop and justify the library's budget, recommend personnel actions, and make decisions concerning equipment and facilities. They are responsible for evaluating the quality of services provided in a library or group of libraries.

3. *Personal contacts.*—Personal contacts at this level are of vital importance to the development and effectiveness of the library or information program. Employees establish and maintain continuing consultative relationships with their professional peers, both within and outside Government, for the purpose of locating or exchanging information of mutual interest. They develop and foster mutually advantageous working relationships with other public, academic, or research libraries, or with State, local or private information or library centers. Contacts are made to encourage and facilitate an exchange of information regarding new developments and techniques or to cooperate on programs of mutual interest.

Factor 2, Degree e (continued)

Diplomacy, effectiveness and competence of a high order are required for personal contacts at this level. Employees serve as spokesmen for the policies, programs and objectives of their agencies in contacts with high level administrative or executive personnel in the agency, or with State or local officials in charge of library or information facilities. They represent their organizations in dealings with local community officials, private organizations and associations having an interest in the agency's program. They represent the interests and points of view of their organizations on interagency committees, national or international conferences or work groups. These contacts involve discussions of the needs and objectives of the program, new methods or techniques being developed, or to elicit understanding, acceptance, and active support for the program.

Factor 3—Knowledge requirements

Knowledge requirements evaluated under this factor relate to a *foundation* of knowledge, education, or training *required by the job.* Since "information" is the essential ingredient of positions covered by this guide, the fundamental knowledges required to provide accurate and adequate information are a prime consideration in determination of grade level.

Obviously, if certain fundamental knowledges are required for the job, they must be possessed by the incumbent of the position. To illustrate: In indexing medical research literature, if the work calls for prolonged professional training in medicine, the incumbent must possess such knowledges. If the agency cannot hire an individual with the required level of knowledge, the job requirements are not being met. Conversely, if an individual possesses a Ph.D. degree in a subject area *but the work does not require an advanced degree,* the position should not be evaluated above the requirements needed for the job.

Criteria under this factor measure variations and combinations of:

1. subject-matter knowledges;
2. knowledge of librarianship;

Factor 3 (continued)

3. proficiency in foreign languages[1]

Many possible gradations of knowledge requirements could be listed. However, it is not feasible—nor for evaluation purposes is it necessary—to draw many fine shadings of distinction. Three broad levels are defined representing a progression from basic knowledges at Level I, to broad and thorough knowledges requiring prolonged professional training at Level III. The examples given in the definition for each level are not to be considered all-inclusive.

Level I

Positions call for the knowledge requirements specified in item 1 for subject matter. Additionally, some positions also require a knowledge of librarianship, as specified in item 2, and/or a knowledge of foreign languages as specified in item 3.

1. *Subject matter.*—Knowledge of the basic principles, theories, practices, techniques, terminology and expressions of a discipline or subject-matter field; an understanding of the standard methods, procedures, and techniques of research and analysis in the subject-matter field; some knowledge of literature resources in the field. The knowledges called for are considered equivalent to those gained in acquiring a bachelor's degree, with a major or minor *in subjects related to the field of work.*

2. *Library.*—Knowledge of library science, documentation, or other information handling techniques, practices, methods, tools, etc. (For example, knowledges called for may be equivalent to a minor in library science.)

3. *Foreign languages.*—Knowledge of foreign languages sufficient to read and interpret bibliographical citations in varied fields; or to read or translate nontechnical material or repetitive or standardized technical information which identifies books, documents, reports, etc; and familiarity with common reference materials used in translation, such as dictionaries, atlases, and other readily available reference works.

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[1] Foreign language proficiency alone is not qualifying for positions covered by this guide. Foreign language proficiency must supplement the knowledge of the subject matter and/or the knowledge of professional librarianship required.

Level II

Positions call for the knowledge requirements specified in either item 1 for subject matter *or* item 2 for librarianship. Positions requiring both knowledges also fall in this level. Additionally, some positions also require a knowledge of foreign languages as specified in item 3.

1. *Subject matter.*—Duties of the position call for *either:*

(a) An *intensive* knowledge of a specialized, technical or scientific area relating to some aspect of a discipline-oriented or mission-oriented field of work, or an important phase or segment of a subject-matter field;

(b) a substantial knowledge of a broad subject-matter field; *or*

(c) a substantial knowledge of a complex of subjects within a mission-oriented field of work (e.g., military sciences, space).

These knowledges must be in subjects which are directly applicable to the duties of the position.

Subject-matter knowledge at this level requires, for example, proficiency in understanding and recognizing the correlation of information in related fields; ability to make refined observations and to recognize or interpret scientific implications; substantial acquaintance with current research efforts in the area of concern; recognition of new methods or techniques, new equipment or systems, to maintain up-to-date information on the state of the art; a need to keep informed and recognize changes, advancements and new developments in the field; perception necessary to recognize and understand subtle variations and deviations from standard practices or those which are significant from a research point of view.

2. *Library.*—A full professional knowledge of the theories, objectives, principles and techniques of librarianship; a breadth of knowledge of literature resources in many subject fields; considerable depth of information on topics of particular interest to specific clientele; and capacity to meet the service needs of the

Factor 3, Level II (continued)

particular library situation. These knowledges typically are equivalent to those gained through a graduate (master's) degree in library science.

3. *Foreign languages.*—Sufficient knowledge of two or more foreign languages, or a foreign language area (such as Romance, Slavic, etc.) to read and abstract, index, or in some cases translate, difficult types of subject matter. Such foreign language proficiency requires a specialized vocabulary (e.g., technical, scientific, legal, or other terminology of comparable difficulty) and a knowledge of the subject matter. The problems encountered relate not only to the inherent difficulty of the subject itself but to the uniqueness of the vocabulary. In many of these subjects, the terms encountered are peculiar to that subject alone and are often the newest terms which cannot be found in a dictionary. Terminology is often highly changeable because of the nature of the subject (e.g., astronautics, electronics, atomic energy) resulting in the fact that the most accurate, up-to-date meanings are not available in dictionaries or other linguistic references.

Level III

Positions call for the knowledge requirements specified in *either* item 1 for subject matter *or* item 2 for librarianship. Additionally, supplementing these knowledges, some positions may also call for lower level knowledges (e.g., Level II knowledge of foreign languages.)

1. *Subject matter.*—A comprehensive knowledge of a subject field or complex of subjects, discipline-oriented or mission-oriented, which requires a prolonged period of pre-professional and professional academic training (e.g., a Ph.D. or M.D., or equivalent experience) to perform the duties of the position.

This level also requires advanced subject-matter knowledges to perform research with information. Such knowledges involve a comprehensive understanding of broad subject-matter areas or intensely specialized fields of research that are, for example, highly theoretical, abstract and frequently controversial; that are in a continual state of growth, development and change; that are on the frontiers of knowledge; that involve problems of great im-

Factor 3, Level III (continued)

portance to the scientific community, to the agency, or to the public; or that require advanced knowledge in the field of national and international security, or military science (e.g., relating to the effect of technological and scientific developments on warfare and strategic planning).

(*Note:* Positions requiring subject-matter knowledges at this level are usually classified to the subject-matter series.)

2. *Library.*—An advanced knowledge of librarianship which requires a prolonged period of pre-professional and professional academic training, (e.g., a Ph.D.) or equivalent experience to perform original and authoritative development work in one or more functions within the compass of library science, e.g.—

— when there is a requirement for an advanced knowledge of library administration and management techniques (e.g., budgeting, staffing, developing new programs) and the ability to apply these knowledges to meet the agency's unique and emergency requirements;

— when there is a requirement for an advanced knowledge of the techniques of librarianship and information systems or network design (e.g., designing or revising acquisitions systems, classification schemes, or developing new reference techniques for a library system); or

— when there is a requirement for an advanced knowledge of librarianship, together with intensive specialized knowledge of a subject field and ability to read or translate fluently, advanced specialized material in two or more foreign languages.

UNITED STATES CIVIL SERVICE COMMISSION

GRADE-LEVEL CONVERSION CHART

Do not use alone. See definitions of the degrees for Factors 1 and 2, and levels for Factor 3.

Factor 3 KNOWLEDGE REQUIREMENTS	*Factor 1* SCOPE OF ASSIGNMENT	*Factor 2* LEVEL OF RESPONSIBILITY		
		DEGREE a	*DEGREE c*	*DEGREE e*
LEVEL I	DEGREE A	GS-5	GS-7	GS-9
I	C	GS-7	GS-9	GS-11
I	E	GS-9*	GS-11*	GS-12*
II	A	GS-7	GS-9	GS-11
II	C	GS-9	GS-11	GS-12
II	E	GS-11	GS-12	GS-13
III	A	GS-9*	GS-11	GS-12
III	C	GS-11	GS-12	GS-13
III	E	GS-12	GS-13	GS-14

*** It is not typical to find these combinations.**

SUMMARY OF FACTORS

Factor 1—Scope of Assignment

Degree A—Average difficulty; limited scope or coverage; training and competence in subject

Degree C—Above average difficulty; broad scope or penetrating coverage; specialized experience

Degree E—Program development; broad scope and penetrating coverage; extended and highly specialized experience

Factor 2—Level of Responsibility

Degree a—
Limited or trainee

Degree c—
Full performance

Degree e—
Expert or leader

Factor 3—Knowledge Requirements

Level I—Basic knowledge of subject; bachelor's degree or equivalent experience; ability to read nontechnical foreign language material

Level II—Intensive knowledge of subject; broad knowledge of subject; professional knowledge of library science; master's degree or equivalent experience; ability to read technical material in two or more foreign languages

Level III—Comprehensive knowledge of subject; advanced knowledge of subject or library science; M.D. or Ph.D. or equivalent experience.

(TS 60)
February 1966

INSTRUCTIONS FOR USE OF THE GRADE-LEVEL CONVERSION CHART

1. The evaluation system involves a separate determination of the proper degrees for Factors 1 and 2, and level for Factor 3: and conversion to a GS-grade by means of the Grade-Level Conversion Chart.

2. The Grade-Level Conversion Chart shows GS–14 as the highest grade level for positions covered by this guide. It is not the intent of this guide to establish a ceiling grade of GS–14 for nonsupervisory positions. There may be positions which exceed to a significant extent the Scope of Assignment at Degree E, or the Level of Responsibility at Degree e. Such positions should be evaluated by comparison with the criteria in this guide and by comparison with the criteria in other related standards (e.g., subject-matter standards or the Research Grade-Evaluation Guide).

3. This is a two-grade interval series with positions typically classified at the GS–5, GS–7, GS–9 etc., grade levels. However, when the work situation requires the assignment of the intermediate degrees (B-D or b-d), the following instructions apply:

(a) Positions with two intermediate degrees (e.g., B and b) have the same grade value as positions with one degree lower and one degree higher (e.g., A and c);

(b) At GS–10 and below, the even grades may be used. Above GS–11, the position must meet the degree requirements shown, or revert to the next lower level. For example, a position evaluated at:

	Factor 1	*Factor 2*	*Factor 3*		
(1)	Degree A	Degree b	Level I	=	GS–6
(2)	Degree B	Degree a	Level II	=	GS–8
(3)	Degree B	Degree c	Level II	=	GS–10
(4)	Degree E	Degree d	Level II	=	GS–12
(5)	Degree E	Degree d	Level III	=	GS–13

APPENDIX TO GUIDE FOR THE CLASSIFICATION OF POSITIONS PROVIDING PROFESSIONAL-LEVEL LIBRARY AND INFORMATION SERVICES

ILLUSTRATIVE WORK SITUATIONS FOR FACTOR 1, SCOPE OF ASSIGNMENT

This appendix has been developed to use in conjunction with the "Guide for the Classification of Positions Providing Professional-Level Library and Information Services," and more specifically *Factor 1, Scope of Assignment.* The examples provided below are intended to illustrate work situations at Degrees A, C and E of Factor 1.

Because they illustrate only one of the three factors provided in the standard for classifying positions in the field of library and information services, the examples are not and should not be considered as illustrations of complete jobs; nor are they, by themselves, classifiable to grade. In using these examples as a background for interpreting the language in Factor 1, Scope of Assignment, please bear in mind: (1) positions are to be classified by application of the standard, *not* by these illustrations; and (2) the examples are illustrative only and do not include all the various combinations of work situations to be found in the various library and information service activities.

DEGREE A

The following are examples of work assignments at *Degree A.* These are not intended to be all-inclusive, but rather are illustrative of this level.

1. *Administration.*—Serves as librarian in charge of a small general or limited specialized collection. Such a collection may be an extension, school, bookmobile, or small branch or local organization library. The library, for example, includes a general collection primarily of nontechnical or fictional material, and may also include a basic or standard collection of books, journals, encyclopedias, or other reference materials in several broad subject areas. The collection is used for reading, recreational, therapeutic, or

educational purposes. Assignments relating to such a collection require provision of general circulation, reference, and readers' advisory service to the general public, or to specialized groups of clientele such as servicemen, hospital patients, children, young adults, elementary or secondary school pupils.

In this situation, the collection is small in that it can be serviced by one or two professional personnel, and several clerical or subprofessional assistants or volunteer workers.

2. *Descriptive cataloging.*—

(a) Performs descriptive cataloging, recataloging, or cooperative cataloging in accordance with standard practices of the library. In a large library, such duties may be in a specific subject or language area as assigned. Catalogs different types and forms of materials (e.g., monographs, serials, pamphlets, documents, films, etc.) including materials new to the library. Determines the person or corporate body responsible for the content of the work, chooses necessary added entries, and determines the proper form of names chosen. Organizes significant bibliographic data relating to the work in such fashion as to distinguish it from all other works entered in the catalog. Identification includes such items as title, publisher, date of publication, contents, explanation of relationship to other publications, or information relative to translations. Prepares authority cards showing variations of personal and corporate names, history and organizational changes of corporate bodies, and sources of documents or information utilized in obtaining such information. Indicates any references necessary from varying forms of the name.

Material cataloged may be scientific, technical and research publications, some of which may be in foreign languages. Descriptive cataloging of foreign language publications requires sufficient reading fluency of the language to identify names, dates, places, titles, indexes, tables of contents, etc.; and familiarity with common reference materials for translation.

(b) In a large documentation center, catalogs technical documents descriptively for bibliographic control. Performs duties similar to those shown above. May also check or verify the proper security classification assigned to titles of classified reports; or distribution limitations assigned, including limitations because of design proposals, copyrights, military restrictions, or other related proprietary and ethical matters.

3. *Subject analyzing—including classifying, assigning subject headings, and indexing.*—

(a) In a large general library, performs subject cataloging and classification of nonfiction books in a variety of assigned subjects. (These include monographs, volume sets, serials, pamphlets, and other library materials.) Assigns classification numbers so that related material is brought together and each new book is integrated with the collection as a whole. Assigns one or several subject headings which best express the book's contents, consulting *Subject Headings Used in the Dictionary Catalogs of the Library of Congress* as a basis for the form of the headings; prepares cross references necessary to denote the relation of subjects to each other. Cataloging duties requiring specialized subject, language, or bibliographic competence are performed by a higher-grade Librarian.

(b) Receives limited assignments in analyzing and indexing scientific and technical reports, journals, or other literature in a specialized field, for use in a nationwide announcement, storage, retrieval and dissemination system. Indexing requires an intensive knowledge of a limited subject. Analyzes the more routine scientific and technical reports involving primarily one major phase of research and development, or is assigned literature on the basis of subject-matter and language competence. Subject headings are selected from a special subject heading list or thesaurus and must accurately reflect the subject content of the article. Indexes and designates articles for inclusion in special scientific or technical bibliographies, identifies articles for abstracting, edits author-prepared abstracts, or writes abstracts for routine reports. In a mechanized operation, follows documentation principles and procedures used in a large-scale computer operation.

(c) Performs subject cataloging and classification in a subject or language area requiring (1) a basic knowledge of the standard principles, practices, methods, and techniques of the subject area, and/or (2) proficiency in a foreign language area sufficient to identify subject areas and translate these into English terms of the appropriate technology. Duties performed are similar to those described in 3(a) above.

4. *Reference and readers' advisory service.*—

(a) In a small medical library limited to basic and current material covering, e.g., neuropsychiatric medicine, provides reference and bibliographic services for psychiatrists, psychologists, research specialists and technicians, instructors and staff members of a hospital. Selects books and periodicals for the collection, and submits the selection list for any suggested changes to a Medical Library Committee. Searches for publications or data requested. Prepares reading lists and/or bibliographies on neuropsychiatric subjects, geriatric research, nursing education and administration or general subjects. This involves the selection of articles based on and relevant to the subject, and preparation of simple annotations, abstracts, or general indexes. Provides an interlibrary loan service by establishing channels of communication with other libraries where published material can be obtained.

(b) In a departmental library extensive in scope, coverage and size provides reference and bibliographic services in various fields related to the department's mission. Locates and selects appropriate material to answer a variety of general reference questions and/or specialized reference questions not requiring subject competence, but requiring a general knowledge of the terminology and reference tools of the special subjects to which the library is devoted. Prepares reading lists and/or bibliographies on technical, research, administrative, or general subjects which involve selection based on subject-matter relevance utilizing a general knowledge of the terminology and reference tools of the subject, and which may involve *simple* annotation, *general* indexing and classification, and/or *simple* abstracting; renders reader's advisory service covering the reference and bibliographic sources of the library or its special collections. Higher-grade specialists with more extensive subject-matter or special bibliographic competence are available to answer the more complex questions, conduct more involved literature searches, or prepare analytical or critical abstracts, or more selective or comprehensive bibliographies.

5. *Literature searching.*—In a large research library or documentation, center retrieves literature citations on requests involving defined parameters or specific routines in a scientific, technical,

or specialized subject field. Prepares demand search requests following specific instructions on probable pertinent subject headings. Analyzes the search and format specifications required by the computer system, and determines the method of entry to obtain an acceptable search. Reviews references yielded by the computer and selects those best fulfilling the request. Assures that references yielded by the computer are relevant to the initial request.

6. *Information interpreting.*—In a scientific and technical information center, serves as a subject specialist to meet the information needs of scientific, engineering, and professional personnel. Within prescribed limitations, performs the more repetitive duties requiring the interpretation and evaluation of the literature in a specific subject area (such as chemistry, biology, etc.) related to the mission of the organization. Analyzes specific inquiries to identify problem areas and to determine the scope and specific nature of the question. Provides replies to inquiries, compiles data, conducts literature surveys, etc., utilizing a basic knowledge of the standard principles, practices, methods and techniques of the subject, or more intensive knowledge of a limited segment of a subject. Refers problems involving broader or more penetrating inquiries, critical evaluation of experimental data, or the interpretation of inconsistent or unexpected results to personnel of higher grade.

DEGREE C

The following are examples of work assignments at Degree C. These are not intended to be all-inclusive, but rather are illustrative of this level:

1. *Administration.*—Is in charge of a general or special library or unit having a collection primarily covering a subject field and containing some research materials. The collection consists of all types of printed and audio-visual media (may include materials in foreign languages) in a variety of subject fields, with particular emphasis on the mission of the agency. Materials are classified and cataloged in considerable detail. The library serves the professional, technical, and other personnel of the organization in which it is located, its field offices, as well as being open to the general public for reference purposes. Reference work includes the answering of ready and selective reference questions. Plans expendi-

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tures for equipment and supplies and the binding of books. Plans changes of library layout and use of available space. Is responsible for book selection and acquisition, and for evaluating the needs of the library with respect to the development of the collection to best serve the needs of the organization. Directs the work of one or two librarians who perform the more routine or repetitive assignments.

2. *Selection and acquisition.*—

(a) In a large military base or post library *system*, has responsibility for selection of reading and audio-visual materials covering a broad range of subjects and requiring experienced bibliographic competence. The library system is used by professional, technical or administrative personnel (military and/or civilian), by college students, and other special interest groups for educational, vocational and cultural pursuits. Selects literature to be acquired from bibliographic sources and indicates most suitable method of procurement, i.e., by purchase, gift, or exchange. Reviews and selects publications for acquisition from gift and exchange lists submitted by domestic and foreign libraries and from lists submitted by field offices and agency libraries. Keeps abreast of current literature in the field in order to develop the collection properly.

(b) In a research library which serves as an information center for scholars, scientists, attorneys, or other highly specialized clientele, selects and acquires literature to support research and program requirements of the parent organization and/or universities, laboratories, or industrial organizations. Materials acquired relate to a subject field (such as medicine, law, agriculture, aerospace); are comprehensive and highly selective in coverage, including current and retrospective material collected on an international basis; and contain primary and secondary source material. Literature not only involves the English language, but also includes work in other foreign language areas. In a large library, has responsibility for a subject or language area.

(c) In a major documentation center serving clientele throughout the Nation, serves as a specialist to insure that the appropriate documentary information is placed into the system. Screens and reviews incoming scientific and technical documents for pertinency to the agency mission. Applies a broad knowledge of various technical and scientific disciplines in order to recognize the importance of a document in whole or in part, thereby eliminating the possibility of discarding a document that may be of importance in advancing current research and development programs, and, conversely, to avoid putting into the system those documents that are of no technical value. This involves analysis, appraisal of scientific and technical value, identification and classification of technical and scientific reports for the use of professional and scientific activities. Discards reports of negligible value. The work typically concerns a single subject (e.g., chemistry) and related subjects, or several subjects related to a broad mission.

(d) In an agency library system, serves as selection official for fiction or nontechnical materials purchased centrally for large-scale distribution to widespread informational and general libraries in the United States and abroad maintained by the parent organization. This may include review and decision on purchase in advance of publication. Decisions affect the number of copies to be printed by the publisher and involve the expenditure of large sums of money (e.g., several hundred copies of one book may be ordered).

3. *Cataloging, assigning subject headings, and indexing.*—

(a) Serves as a specialist in cataloging or assigning subject headings (1) to a wide variety of printed and audio-visual materials in a broad complex of subjects, including items required to support academic study at the college/university level and professional military training; (2) to materials in a subject characterized by rapid change or development; (3) to difficult materials in a particular language or from a geographic area not covered by trade bibliographies or reference works; or (4) to incunabula and other publications requiring extensive knowledge of the history of books and printing. In a large library, may have principal responsibility for assigning subject headings in one subject and related subjects or in a combination of unrelated subjects; or subject cataloging responsibility for a complete language area. May also participate in developing the pattern for application of a classification scheme in the library, in formulating cataloging policy, or in resolving conflicts in cataloging within his area of specialization.

(b) In a large research library, serves as the specialist for cataloging especially difficult material in the Russian and related languages. Work requires the ability to read technical documents. The collection consists of journals, books, periodicals, maps, etc., in the fields of the physical sciences and engineering related to the agency's mission, and may include materials not generally covered by trade bibliographies. All materials are classified and cataloged in considerable detail. The entries established require extensive research.

(c) Performs both descriptive and subject cataloging of scientific, technical and research publications in an assigned subject, language, or technical area which are new to the collection. Searches as necessary the most difficult materials in the assigned area. Cataloging includes choice and establishment of authoritative entry for personal and corporate authors of the most difficult type; choice of the most appropriate detailed subject headings for the materials from the authoritative list of subject headings used by the library; appropriate classification of the material from the *Scheme of Classification* used by the library; and assigning author numbers from the approved author tables. The subject headings and classification are assigned from the specialized viewpoint of the subject coverage of the department, and of the needs of the department personnel and other clientele.

Cooperates with the Library of Congress by preparing original cataloging copy and information for publication in the assigned subject, language, or technical area, for publication in the *National Union Catalog* and other publications.

Recommends new subject headings and revisions of subject heading patterns as necessary (the position is located in a national research library, and its subject authority file is considered the most comprehensive and authoritative in the world in its field of interest and allied sciences). Recommends expansion of and new schedules for inclusion in the library's classification scheme as necessary. Resolves conflicts in entries and cataloging for the assigned specialized area.

(d) Analyzes and indexes scientific and technical reports generated by research and development activities to provide for their efficient storage and retrieval by a computer-oriented document processing system. Analyzes specialized reports to the depth necessary for insuring proper association and linking of scientific and technical concepts to meet prerequisite standards for consistency and validity of analysis. Applies the structured format for accomplishing computer-programed storage, search and retrieval of documents in his scientific specialty. Assigns descriptors from the controlled thesaurus of descriptors, arranges descriptors in ordered context and selects the most pertinent descriptors for inclusion in the Cumulative Index. Adapts author-prepared abstracts or writes indicative abstracts for specialized reports which are incomplete with respect to abstract requirements.

Performs necessary study and search to clarify terminology, assures that the terminology conforms with most recently accepted standards in scientific and technical research; recommends the establishment of new retrieval terms, and makes provision for handling identifiers (names of projects, ordnance, weapons systems, etc.). Maintains an awareness of the most recent developments in the authoritative indexing vocabulary.

4. *Reference service, literature searching, preparation of bibliographies.—*

(a) Locates and selects appropriate materials, making analyses when necessary, to answer selective and/or comprehensive reference questions calling for subject or special bibliographic competence, and including the evaluation of authoritativeness, timeliness, and relevance of specialized information on a single topic, issue, or problem. This often involves information not included in catalogs or inadequately covered by the usual bibliographic controls. Anticipates the need for and recommends preparation of bibliographies within the program requirements of the library or parent organization. Prepares analytical abstracts or selective or comprehensive bibliographies (involving analytical abstracts or annotations) on special or general subjects which are usually of an authoritative nature and may be published. Prepares detailed subject indexes. Renders readers' advisory service in a variety of subjects or in a specialized subject.

(b) In a library with a comprehensive and extensive legal collection, provides a variety of difficult reference, readers' advisory, and bibliographical services for attorneys and other officials of the agency, as well as other Government agencies. Extensive knowledge of the terminology of the law and the reference tools and methods of that subject, such as the Index to Legal

Periodicals, Shepard's Citations, law encyclopedias, digests, is required. Services involve the extensive searching of codes, statutes, reports of decisions of judicial, quasi-judicial, and administrative agencies; the use of indexes, digests, catalogs and tables; the searching of Government documents, including congressional reports and hearings, legal treatises, and works of general reference. Is required to locate and select materials, making analyses, where necessary, in order to answer a wide variety of reference questions both general and in the specialized field of law. The greater percentage of the problems are legal, requiring the use of legal reference materials rather than general reference materials, although the latter are used to a considerable degree. Compiles selective bibliographies (which may be annotated) of legal periodical literature and treatises and/or listings of legislative or administrative enactments of judicial or administrative decisions on a legal subject.

(c) Utilizing knowledge of the medical subject-heading structure, scientific terminology, logic of search formulation, and computer capabilities, prepares search requests for the retrieval of medical citations. Analyzes bibliographic requests that represent difficult searches due to lack of clarity in the request, absence of defined parameters or specific routines, lack of items for identification, etc. Obtains whatever additional information is necessary, either by personally contacting requestor to change nature of request or provide additional data, or searches appropriate reference sources to have a thorough knowledge of all areas in which requestor may be interested. Reviews and analyzes the references gathered by the computer considering each citation for completeness of indexing and applicability to the original request.

For bibliographies to be published automatically on a recurring basis, analyzes the requirements of the groups requesting them and works out the complex arrangements and logic to insure their suiting the purpose. Conducts demand searches to test the adequacy of the bibliographies. After reviewing the results, further refines the parameters or specific routines to produce the most precise final output. In setting up these arrangements and parameters, great care must be taken since the bibliography is a continuing, recurring output and its arrangements are substantially permanent.

(d) As a subject specialist, is responsible for providing literature searches in a specialized field of research or technology (e.g., plastics). Provides for literature searches in the field of chemistry and related disciplines involving the extensive technical program and widely divergent areas of the specialized field. Works closely with the technical specialists as a team member in determining the nature and extent of the literature search. Performs the search, or arranges for a contractor or other agency to perform the search in a general category, and from this point proceeds to a more specialized search. As a result of the literature search, provides the specialist with a detailed analysis and appraisal of all the work, both military and industrial, that has been performed and is currently in progress in the specialized area under study. This, combined with the specialist's technical evaluation, results in the state-of-the-art report.

5. *Information scouting.*—In a referral center, serves as a specialist in engineering and closely related subjects. Analyzes requests for referral concerning scientific and technical information dealing with complex and often advanced concepts of engineering and closely related subjects. Interprets the request for referral into terms whereby referral points germane to the request may be provided. Prepares replies to requestors with the names and locations of services, information centers, offices both within and outside Government, special permanent or temporary groups, and individuals considered to be the best qualified to furnish the requestor with the specific and exact type of information desired. Insures that the requestor is provided only with those referral points that will be of certain value to him, and that the requestor is fully qualified to be served by all referral points supplied. Maintains a continuing surveillance for information concerning resources of scientific and technical information in his subject field of engineering and closely related subjects.

DEGREE E

The following are examples of work assignments at Degree E. These are not intended to be all-inclusive, but rather are illustrative of this level:

1. *Development of programs for library services.*—

(a) In a library with an extensive nationwide library program which provides services to a specialized group of clientele, or in an administrative office charged with policy and program responsibilities over a large geographic area which may include a number of independent libraries or library systems, develops programs for library services. This includes responsibility for: (1) staff planning of the libraries, as well as developing, implementing, monitoring, and recommending corrective action or new techniques for the program wherever applicable; (2) evaluating the libraries in the system in terms of clientele requirements and local needs, as well as quality of performance at the local level; (3) analyzing and evaluating materials and reports on the libraries in the system received from local headquarters or stations, and initiating corrective actions through channels for solution of special problems;(4) developing instructional material and guidelines for use of field librarians in setting up local programs; (5) developing and preparing guides for the use of nontechnical supervisors visiting libraries in the system; and (6) initiating research and development projects concerned with improvement of the library program.

(b) In an administrative office with an extensive worldwide library program which primarily provides services to a specialized group of clientele, develops plans, policies, and standards for agencywide library programs. This includes responsibility for (1) developing policies for the successful accomplishment of a library program's mission; (2) recommending policies to top management to meet unique and critical situations and provide policy guidance to lower echelon; (3) adjusting established standards for various types of libraries to meet agency needs and evolve new standards as necessary; (4) analyzing the degree of program accomplishments and determining necessary changes; (5) developing and providing guidance for agencywide programs, including development of personnel, to improve technical competency, professional librarianship, and management procedures; (6) initiating research and development projects in library management.

2. *Development of terminology control or subject heading systems.*—Serves as a professional authority to control the modification and application of terminology for storage, announcement, search and retrieval of scientific and technical information. The vocabulary provides a principal means of bibliographic control of documents accessioned by a nationwide information facility, and

is used extensively by information specialists throughout Government, industry, and foreign documentation centers.

Establishes and maintains a comprehensive program for (*a*) developing a working vocabulary of terms for use in processing scientific and technical information, (*b*) formulating rules and aids for the use of the vocabulary, (*c*) standardizing the vocabulary in accordance with the requirements of the department and other documentation centers, and (*d*) conducting studies and tests of the effectiveness of the indexing and retrieval system.

Directs the maintenance of basic files of descriptors (subject index terms) and identifiers (equipment designations, project names, etc.). Directs the compilation, review, and maintenance of the thesaurus of descriptors and thesaurus of identifiers. Guides the formulation of standardized technical vocabulary compatible with storage and retrieval systems. Supervises the generation of special word listings and thesauri. Directs the design and application of compatible thesauri codes for synchronized computer processing.

3. *Program responsibility for selection, reference and readers' advisory service.*—In a large general library *system*, serves as coordinator of adult services. The library system includes an extensive reference collection covering broad subject-matter areas. In this connection: (*a*) implements the objective set forth in the enabling legislation in planning the adult service program; (*b*) based upon a mastery of extensive literature, formulates adult service book selection policy, giving overall direction to developing adult collection in accordance with this policy; (*c*) gives leadership in specialized technical areas, and (with a few professional assistants) promotes system-wide balance in the book collection; (*d*) interprets book selection policy, and determines the distribution of all adult reference books to ensure the maximum utilization of these tools; (*e*) evaluates the quality and coverage of the various branch collections; (*f*) establishes standards of performance for adult reference and advisory service throughout the system; (*g*) explains adult service policies and functions to visitors, foreign librarians, groups from library schools, etc.

4. *Literature searching and researching with information.*—Provides professional responses from scientific and technical literature research, requiring *both* an intensive and extensive knowl-

edge of a broad subject-matter area (such as the physical sciences, or the social sciences), or several subject-matter areas related to the mission of the organization. In this connection: (*a*) conducts literature research in response to requests for information in several scientific, technical or professional fields; (*b*) analyzes data, gives a conclusive determination of validity and worth of findings; (*c*) frequently, arrives at conclusions beyond those of the individual authors; (*d*) in some cases, extends the state of the art through benefit of the composite of determinations by authorities in highly specialized fields; (*e*) determines gaps in available research information or areas needing literature research in the various scientific fields; (*f*) determines the type and priority of literature research projects needed, based on general needs of present and future programs assigned to the organization; (*g*) contacts experts who possess depth of knowledge in the exact study to update any questionable information, and keeps abreast of latest scientific explorations conducted throughout the world; (*h*) writes reports for limited circulation and papers for publication in the open literature, summarizing the literature research work performed and recording the conclusions reached.

5. *Information scouting.*—Maintains an active and comprehensive service for the referral of scientific inquiries and requirements to the information systems and services throughout the United States. This includes responsibility for planning, directing, coordinating and establishing an active national referral service which responds to personal visits, telephone inquiries, and correspondence from officials of Government agencies, private industry, academic and research organizations, and other requesters seeking general or specific guidance concerning the location and availability of desired scientific and technical information. The referral service provided must reply in kind to inquiries of any degree of complexity in any of numerous fields of science and technology. Identifies and evaluates alternative sources as to potential value and describes all necessary procedures for obtaining desired information or data.

Establishes the policies and procedures necessary for devising, developing, and maintaining a wide variety of special files, indexes, rosters, and other guides and tools requisite to rapid, accurate, and effective service. Develops and maintains detailed control mechanisms and feedback procedures to assure continuing statis-

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tical and substantive analysis and evaluation of the effectiveness of these tools and services.

Maintains close and effective liaison with major points of referral and with all other major science information services in the United States in order to achieve and maintain accurate and up-to-date knowledge of their collections, procedures, and key personnel. This liaison will be effected in part by telephone and correspondence, but primarily by personal visits to the activities concerned to permit familiarization with the operations, collections, and specific scientific interests of the organizations involved.

UNITED STATES CIVIL SERVICE COMMISSION

BULLETIN

Washington, D.C. 20415

BULLETIN NO. 938-4

February 27, 1976

SUBJECT: Advance Copy of Revised Supervisory Grade-Evaluation Guide, Part I, and New Work Leader Grade-Evaluation Guide

To Heads of Departments and Agencies:

Purpose:

The purpose of this Bulletin is to provide an advance copy of two classification standards, namely: The revised Supervisory Grade-Evaluation Guide (Introduction and part I) and the new Work Leader Grade-Evaluation Guide for clerical and other one-grade interval occupations and to authorize their immediate use.

An advance copy of these classification standards is being distributed because of the significant changes made in, (a) the criteria for identifying and titling positions with supervisory responsibilities and (b) the grading criteria in part I which apply to supervisors over clerical and other one-grade interval work. Changes are primarily editorial in part II of the Supervisory Grade-Evaluation Guide which applies to supervisors over professional, administrative, and other two-grade interval work. Therefore, an advance copy of this part is not being distributed.

It is of the utmost importance that these revised standards be fully studied because of the numerous modifications. Only such study will insure proper retitling and grading actions.

Supervisory Grade-Evaluation Guide

Significant differences between the standard issued in 1965 and this revision include: Criteria for distinguishing between supervisory and managerial positions, titling instructions, and grade level criteria in part I.

a. The definition of "supervisor" is new and more demanding. The definition of "manager" was previously developed and issued with FPM Letter No. 412-2, Executive and Management Development, dated January 29, 1974. These definitions have been included in a new introductory section to the standard.

INQUIRIES: Standards Division, Bureau of Policies and Standards, telephone, code 101, extension 29790, or 63-29790

CODE: 938, Classification and Pay of Specific Positions

DISTRIBUTION: FPM

BULLETIN EXPIRES: January 31, 1977

b. The standard establishes, for the first time, a minimum core of duties and responsibilities that must be met to title a position as supervisory. The titling instructions in the Introduction to Position Classification Standards are similarly being changed to restrict the use of supervisory titles to positions which direct the work of three or more employees, and exercise supervisory authority as described in the revised standard at degree B of factor II, in both part I and part II.

c. Revisions in part I are numerous. Some of the significant changes are: (1) Grade level criteria have been added for evaluating second-level supervisory positions; (2) grade level criteria for first-level supervisory positions have been extensively changed; (3) the conversion scale has been adjusted; and (4) the lowest level for classification of supervisors has been raised from the GS-4 to the GS-5 grade level to reflect the more demanding criteria for evaluating a position as supervisory.

Work Leader Grade-Evaluation Guide

The grade level criteria for work leader positions has been removed from the Supervisory Grade-Evaluation Guide and published as a separate standard. Many reviewers of the draft of the Supervisory Grade-Evaluation Guide recommended issuance of a separate standard in order to clearly distinguish these positions from true supervisory positions. Also adopted was the recommendation that a title other than "senior" be used. Accordingly, we have prescribed that the prefix "lead" be added to the title of positions classified by the Work Leader Grade-Evaluation Guide.

The Work Leader Grade-Evaluation Guide applies only to positions in clerical and other one-grade interval type work. The duties and responsibilities described in this guide for work leaders is not appropriate for positions with some aspects of supervisory responsibilities over employees performing professional, administrative, or technical work. These nonsupervisory positions typically function as coordinators, team leaders, project leaders, or have other similar kinds of responsibilities which are not described in this guide.

Authorization for Immediate Use

The revised Supervisory Grade-Evaluation Guide and new Work Leader Grade-Evaluation Guide are authorized for immediate use upon receipt of this Bulletin. However, application to individual positions is not required until the regular distribution is available to agencies. These standards are expected to be printed by April 1976.

Raymond Jacobson

Raymond Jacobson
Executive Director

Attachments

SUPERVISORY GRADE-EVALUATION GUIDE

INTRODUCTION

Purpose of the guide--Relationship to position management

This guide serves three important purposes:

1. To provide direct guidance in determining the grade value of positions with supervisory responsibilities;
2. To provide a basis for uniformity in distinguishing, along the continuum of supervisory-managerial responsibility, between work leaders, supervisors, and managers; and
3. To provide managers and their staff advisors with an additional analytical tool for use in reviewing organizational structure for position management and control purposes.

These three purposes, of course, are closely interrelated. Proper classification of supervisory positions requires systematic analysis of duties, responsibilities, and qualification requirements, as assigned by competent management authority. Proper organizational arrangements (i.e., the assignment of responsibility and authority for functions, program areas, staff, etc.) requires this same kind of analysis to provide a solid basis for the management decisions which lead to the creation, abolition, or modification of supervisory jobs. Proper selection, training, and intramanagement communication require the ability to distinguish consistently, again on the basis of duties and responsibilities, between positions with very limited supervisory responsibility (e.g., work leaders, team leaders, and reviewers), and positions with sufficient supervisory responsibility to be properly titled "Supervisor," and recognized as the front line of management, and positions which need to be recognized as having managerial responsibilities, and as requiring managerial qualifications.

This guide serves these three related purposes by providing definitions of supervisory and managerial positions, with criteria for distinguishing between them, and by providing descriptions of a common set of supervisory tasks, scaled as to difficulty. The description of supervisory positions can thus be sharpened and clarified so as to trace more precisely relationships among supervisors in the same and related lines of command. These better descriptions can contribute to effective design of jobs and organizations and to the identification of unwarranted overlapping and fragmentation.

One problem, for example, which has plagued both classifiers and managers has been the assumption that each succeeding organizational layer of supervision automatically warrants an additional grade level. This assumption can sometimes lead to a proliferation of layers of command beyond a useful management purpose. This guide can help in dealing with this problem because it makes it clear that grade-level differences between supervisory

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positions at different levels can be justified only by reference to actual and substantial differences in difficulty and responsibility. Thus, the guide definitely can result in a supervisory position being properly evaluated at the same grade level as another supervisory position below it in the chain of command. Of course, if this guide casts serious doubt on the need for grade-level difference between two successive supervisory levels, management will want to review the necessity for this particular organizational structure.

Obviously, this kind of relationship will be useful both in reviewing existing organizational patterns and in creating new ones to meet new or changing program requirements.

DEFINITIONS

"Supervision" and "management" are rather ill-defined terms which have come to be applied to a continuum of responsibility from the least responsibility for instructing, assigning work to, or reviewing the work of another employee to the direction of the largest organizations and programs of Government. The lower end of the continuum tends to be called supervision, and to relate primarily to the direct oversight of people; the higher end of the spectrum tends to be called management, and relates primarily to the direction of programs and multi-segment organizations. Both supervisory and managerial positions operate within the framework of government and agency-wide policy with respect to programs, organizational and personnel matters and appropriate labor-management agreements.

However, this continuum also represents a significant range of differences in knowledge, skill, and ability requirements, in training needs, and in intra-management communication needs. It is accordingly necessary to undertake to distinguish the major segments of this spectrum in order to facilitate proper and uniform treatment of comparable positions in personnel and management processes.

Supervisory duties and responsibilities represent a kind of work which, when performed reasonably fully, represents an extension of, and requires identification with "the management" of the organization. Yet many positions involve performance of aspects of this kind of work to such a limited extent that they should not be regarded as part of "management." These may include, for example, positions of work leaders, team leaders, coordinators, or reviewers which involve performing only limited aspects of the defined supervisory duties and responsibilities.

A distinction therefore needs to be made along the continuum of supervisory duties and responsibilities, between positions which have supervisory responsibility to a degree sufficient to require identification with management and those which do not. This distinction is important for such purposes as management training, intra-management communication, and determination of managerial status under the Fair Labor Standards Act. It is also important that it be spelled out as a background for management decisions on organizing, and on establishing and delegating responsibility to, supervisory positions.

To highlight this difference, this standard restricts the title "Supervisory" to positions that have a sufficient level of supervisory responsibility to be considered part of the management team, as described in the following definitions of managerial and supervisory positions.

DEFINITION OF MANAGERIAL POSITIONS

Managerial positions are those in which incumbents (1) direct the work of an organization, (2) are held accountable for the success of specific line or staff programs, (3) monitor the progress of the organization toward goals and periodically evaluate and make appropriate adjustments, and (4) typically perform the full range of the following duties and responsibilities:

a. Determine program goals and develop plans for the organization independently of or jointly with higher management;

b. Determine resource needs and allocation of resources and account for their effective use;

c. Determine the need and develop plans for organizational changes which have considerable impact, such as those involving basic structure, operating costs, or key positions;

d. Consider a broad spectrum of factors when making decisions (or recommendations to higher-level management) including public relations, Congressional relations, labor-management relations, public policy stances, effect on other organizations and other parts of the organization, economic impact, and the like;

e. Coordinate program efforts with other internal activities or with the activities of other agencies;

f. Assess the impact on organization programs of substantive developments in programs and policies in other parts of the agency, in other Government entities, and in the private sector;

g. Set policy for the organization managed in such areas as determining program emphasis and operating guidelines; understand and communicate agency policies and priorities throughout the organization managed;

h. Deal with general personnel management policy matters affecting the organization managed, with personnel actions affecting key employees, and other actions with possible serious repercussions; and

i. Delegate authority to subordinate supervisors and hold them responsible for the performance of their organizational units.

"Deputy" positions are included when the responsibility for managing the total organization is divided between the manager and the deputy; or when the deputy serves as an alter ego and assists the manager in all phases of the organization's work.

It is recognized that this definition excludes many positions which require a high degree of expertise in management subjects but which do not include responsibility for directing an organization or a subdivision of an organization. The definition excludes:

- General staff assistants to managers;
- Positions at the first or second supervisory levels that primarily involve the duties outlined in the definition of Supervisory positions as distinguished from managerial duties including positions with some but not the full range of managerial duties described above;
- Nonsupervisory positions with responsibility for technical guidance of work performed by contractors, grantees, or personnel in other Government organizations.

DEFINITION OF SUPERVISORY DUTIES AND RESPONSIBILITIES

Supervision involves getting work done through others (i.e., the direction of subordinate employees in the performance of work) with accountability to agency management for the quantity and quality of the work done and for assuring efficient and economical work operations. Supervisory functions include a range of duties and responsibilities for planning, organizing and reviewing work, administering personnel matters, and dealing effectively with employees and union representatives about employee-management concerns. Incumbents with supervisory responsibilities perform a range of duties such as:

a. assign, direct, and review the work of subordinate employees;

b. plan and carry out the training and development of employees;

c. evaluate employees' work performance;

d. recommend selections, promotions, status changes, awards, disciplinary actions, and separations;

e. plan, schedule, and coordinate work operations;

f. solve problems related to the work supervised;

g. determine material, equipment, and facilities needed;

h. explain and gain the support of employees for management policies and goals (for example, cost reduction and safety);

i. work to achieve the objectives of Government-wide personnel programs and policies (e.g., labor-management relations and equal employment opportunity); and

j. deal effectively with employees and union representatives on employee suggestions, complaints, grievances, and other matters involved in the day to day administration of labor-management agreements, sometimes including labor-management contract negotiations.

Some supervisory positions also include responsibility for advice to management on and participation in the:

- establishment of program and production goals, priorities, and major work schedules;
- development of cost and budget analyses or forecasts; and
- determination of long-range manpower requirements.

TITLES

Positions which involve supervisory duties and responsibilities (as defined above) with respect to three or more employees (exclusive of "support" employees), whose supervisory responsibilities meet or exceed Degree B on elements 1, 2, and 3 of Factor II under Part I, or Degree B on Factor II of Part II, shall be titled "Supervisory."

EXCLUSION FROM TITLING AS A SUPERVISORY POSITION

1. Positions with responsibility for work assignments requiring only one or two other workers or with supervisory responsibility only in the absence of the regular supervisor. Such positions have as their primary responsibility personal work accomplishment. Responsibility for work assignments involving one or two other persons is not sufficient to warrant identification of a position as supervisory.

2. Positions with some supervisory duties and responsibilities but less than that described for "level B" in Factor II of Part I and Part II of this guide.

COVERAGE OF THE GUIDE

This grade-evaluation guide is for use across occupational lines for positions that include responsibility on a regular and continuous basis for directing other employees in the accomplishment of work.

This guide provides grade level criteria for supervisory positions at the first and second levels. Also covered by this guide are first and second level supervisory positions that have some aspects of managerial responsibilities, but not the full range as identified in the preceding section, "Definition of Managerial Positions." The terms "first" and "second" level of supervision and "managerial" reflect the nature of the accountability of the position rather than the mere location of the position in the supervisory chain of command.

Differences in supervisory assignments reflect differences in programs, staffing patterns, or other organizational or operational requirements. They result from decisions of higher management on the way in which supervisory or managerial authority and responsibility are to be delegated. However, some responsibilities, such as planning work assignments, training, and evaluating employees, and recommending action in personnel management matters, are common to supervisory assignments at all levels.

First-level supervisors are the members of management with whom the average employee has the most direct or regular contact, and who can provide higher level management with information and insights into employee feelings, attitudes, and behavior. Conversely, first-level supervisors are the focal point in communicating the policies and objectives of management to employees. They stimulate, motivate, and instill in employees a sense of participation in achieving management's goals. They are responsible for the efficient and economical operation of the organizational unit.

Second-level supervisors are responsible for directing an organization through subordinate supervisors. Their duties and accountability are described at level D in Part I, and Degree A in Part II.

Some positions with important supervisory responsibilities are not appropriately covered by this guide. Such positions are identified in the "Exclusion" Sections in Part I and Part II. Among the exclusions are supervisory positions whose evaluation requires the use of separate supervisory standards set forth in terms specific to an occupation.

The issuance of this guide eliminates, or reduces the need for, descriptive material on supervisory functions in individual occupational standards. Therefore, only a few separately published classification standards now provide such material for positions in which the supervisory work is paramount.

Organization of the Guide

This guide is divided into two parts. The coverage of each part is comprehensively defined within that part. Broadly speaking, Part I deals with positions which involve supervision of types of work which are classifiable at one-grade intervals through GS-8. Part II deals with positions which involve supervision of types of work which are classifiable at two-grade intervals, and at one-grade intervals where the base level of work is GS-9 or above.

SERIES DETERMINATION

This guide is not intended to affect current practice regarding series classification. Positions classified as to grade by means of this guide will continue to be classified to the most appropriate classification series in accordance with definitions published in the Commission's "Handbook of Occupational Groups and Series of Classes" and amplifying material in published classification standards.

SUPERVISORY GRADE-EVALUATION GUIDE

Part I

COVERAGE

Part I is for direct use in the evaluation of positions of supervisors, regardless of level in the supervisory chain, which meet the following criteria:

1. The paramount responsibility of the position con[illegible] the supervision of three or more employees (exclusive of [illegible]support" employees) engaged in work which is properly classified at one-grade intervals, provided the creditable level of work under Factor I is not above grade GS-8. Included, for example, are supervisors of clerical work, office machine operation, communications equipment operation, one-grade interval technician work, protective and custodial work, etc.
2. As a minimum, the duties and responsibilities of the position match at least the scope of Degree B on elements 1-3 of Factor II.

EXCLUSIONS

The grade-level criteria in Part I are not for direct application to the following positions:

1. Positions with responsibility for work that is not primarily accomplished through the subordinate staff, or that involves fewer than three subordinates. Such positions reflect a situation in which the primary responsibility is nonsupervisory, i.e., personal work accomplishment. They should be classified primarily on the basis of their nonsupervisory responsibilities in accordance with appropriate subject-matter standards.

2. Positions having the full range of managerial functions as delineated in the "Definition of Managerial Positions" in the introductory section.

3. Positions which involve supervision of research or other professional and scientific work, or of administrative or technical work falling in series in which positions are properly classifiable at two-grade intervals, or work classifiable at one-grade intervals with a base level of GS-9 or above.

4. Positions which involve "staff-type" technical guidance of employees or organizational units not under the direct line control of the incumbent.

5. "Assistant chief" positions. The factor and element values and grade conversion table in this part are not geared to their direct evaluation. Such positions may be classified in relation to the position of the "chief," or supervisor of the unit. Ordinarily, where the "assistant chief" is a full assistant to the chief, occupies a position in the direct supervisory line, and shares in, and assists the chief with respect to, all phases of the unit's work, the "assistant chief" position will be one grade lower than that of the chief.

6. Positions involving supervisory responsibilities that also entail the personal performance of duties which are quite different in kind or level from the work supervised and/or which are not a part of normal supervisory responsibilities. For example, a supervisor of accounting clerical work may personally and individually perform certain assignments involving professional accounting; or a supervisor of a unit may have responsibilities for advice to management which are personal and not necessarily a part of supervising the unit. Positions involving such responsibilities should be treated as mixed positions; the supervisory responsibilities may be classified by this guide, while the additional duties which the incumbent performs personally should be evaluated separately on their own merits.

7. Supervisory positions in series for which current classification standards provide specific grade-level guidance for supervisory positions.

CONCEPT AND PLAN FOR PART I

Reduced to simplest terms, the classification of supervisor positions under this part involves determining what increment over the grade level of the work supervised is appropriate for the additional responsibility assumed by the supervisor. (In the case of supervision of very low grade work, minimum grades are established for defined degrees of supervisory responsibility.)

Therefore the guide provides for a determination of the base level of work supervised. Then it provides for a determination of the number of grades to be added to this base level to reflect properly the kind and degree of supervisory responsibilities and problems which characterize the work assignment.

Elements which determine the appropriate increment over the base level of work supervised are grouped into three factors: The kind and degree of supervision exercised; the scope and variety of operations supervised; and special additional responsibilities.

The kind and degree of supervision exercised relates to the extent to which the supervisor is required to perform, and is held responsible for, the many elements of work planning and organization, work assignment and review, supervisory personnel functions, and technical responsibility which comprise the total supervisory pattern.

The scope and variety of operations supervised is the factor which relates to the size and workload and variety of work and activities of the organization supervised.

Under special additional responsibilities are considered such items as problems which stem from supervision of shift operations, from large and frequent fluctuations in work force, from constantly changing assignments and deadlines, from dispersion of work force, and from special staffing situations.

Scales for Factor II, Kind and Degree of Supervision Exercised, for Factor III, Scope and Variety of Operations Supervised, and for Factor IV, Special Additional Responsibilities, provide the means for determining the values of these three factors. Values for these factors are expressed in terms of points assignable if the factors, or their elements, meet designated conditions. These points are then converted into the number of grades to be added to the base level of work.

For positions covered by Part I, such a system of points, and conversion of points to grades, seems to be the most practical way of systematically relating and reconciling the many variables of supervisory situations into a consistent set of grade evaluations. However, the fact that judgments regarding these elements are quantified should not obscure the fact that they are judgments. Neither should the classifier lose sight of the fact that the situations described are norms, or statements of concepts and intent, rather than absolutes.

Sound classification judgment, rather than rigid and slavish arithmetic, should still be the basis of evaluations. For example, several criteria are given for determining the number of "kinds of work" present in the job. The intent of this element is to credit the additional breadth of knowledge required to supervise dissimilar kinds of work. Classification series are not, of course, all equal in breadth of coverage, nor does the presence of work falling within a particular series necessarily imply that the job involves the full range of knowledge typical of the series. Thus, good classification judgment may determine that elements of two or three very closely related series may represent essentially one "kind of work" (especially if each element covers only a narrow band of the series), or that two job elements within one broad series may represent two "kinds of work" if sufficiently dissimilar and if a sufficient breadth of different subject-matter knowledge is required.

Similarly, in relating staff to workload, the standard implies that the present staff-workload ratio may be accepted as a base. However, abnormal staff-workload ratios, if blindly accepted, could tend to distort grades. While classifiers do not have responsibility for determining staff-workload ratios, they must be alert to the effects that any known overstaffing or understaffing may have on application of this standard. Where there appear to be marked incongruities between workload and staff, the situation should be clarified before application of this guide.

Exercise of judgment may be required in weighing the value of other elements, such as "full and final technical responsibility," or "constantly changing assignments and deadlines," against the intent of the guide. When a position is borderline in two elements, they may be balanced against each other by crediting one and not crediting the other.

Factor I.--Base Level Of Work Supervised

The intent of this factor is to identify the highest level of "line" or productive work which constitutes a significant proportion of the work under the technical supervision of the position being evaluated. The base level of work supervised will be the highest actual grade of a substantial proportion of the nonsupervisory positions in the unit. In some instances, however, job dilution may result in a situation in which none of the nonsupervisory jobs are classified at the full performance level of work which is present in the unit. In such cases, a "constructed" level, as determined under 3, below, will be used.

To Determine Base Level of Work--

1. Identify the different kinds of work represented among the "line" jobs of the unit.

A "kind of work" usually will be the equivalent of a classification series. However, this does not apply to such broad series as GS-301 or GS-501 which, by definition, may include work throughout the range of an entire occupational group. More than one "kind of work" may be identified for a series or position when separate elements comprise distinct and separate blocks of work, and require substantially full qualification in distinctly separate areas, or full knowledge and understanding of rules, regulations, procedures and subject matter of a distinctly separate area of work.

Some positions appropriately classified by this guide may also have responsibility for work covered by the Federal Wage System. Although such wage grade work would not be identified as a "kind of work" for base level determination, it may be credited for variety under element 2 of Factor III. For wage grade positions a "kind of work" is represented by the broad trade or craft such as automotive mechanic, carpenter, or plumber; the various specialized series of the trade are not to be recognized as separate "kinds of work."

Work in the following categories should not be identified as separate "kinds of work" for base level or variety determinations:

- Work in individual positions that may have elements which can be related to more than one classification series when such positions involve performance of a homogeneous, integrated assignment.
- Work in a series which is wholly contained within some other specific series. For example in a unit performing time, leave and payroll work only the Payroll Series should be recognized rather than separately recognizing the Time and Leave Series and the Payroll Series.
- Work in wage grade occupations which are ancillary to a trade or craft (e.g., helpers, laborers, etc.).

"Line" positions are positions directly engaged in performing the work for which the unit was established, such as voucher examiners and payroll clerks in a Payroll and Voucher Unit. "Support" positions, which are to be distinguished from "line" positions, are those which perform facilitating services to the unit, such as stenographers or file clerks in a Payroll and Voucher Unit. However, stenographers would represent "line" positions in a Stenographic Pool, while file clerks would represent "line" positions in a Files Unit.

2. Find, for each kind of "line" work, the highest-graded nonsupervisory position or positions over which the position being evaluated has technical supervision.

3. Ascertain whether the grades of the positions identified under 2 (above) for each kind of work represent the appropriate grades for full performance, under normal supervision, of such work as it occurs in the unit. Note: By "normal supervision" is meant a level of supervision which is neither close and detailed, nor so minimal as to demand an extraordinary degree of personal independence and responsibility which is not normal to the nature and variety of work performed. When base work is at a very low grade level, and the work is so standardized or so circumscribed as to offer little or no opportunity for use of judgment,

"normal supervision" may be equivalent to "immediate supervision." Above the lowest grade levels, "normal supervision" represents the level commonly called "general supervision," at which employees are expected to receive assignments without detailed instructions and to carry them through to completion with substantial independence. They may consult their supervisor on problems, and the finished work may be subject to either spot-check or full review, depending on the type of work and the circumstances. In either case, the employees are considered to be operating at the "full performance level" for the kind of work they are doing.

Constructed Grade:

In some cases, where there has been considerable subdivision of work assignments, or where the entire staff of a unit is in training, it may be found that the full performance level of one or more kinds of work is not reflected in any established nonsupervisory position. In such cases, a hypothetical or constructed grade may be determined which represents the grade which would be appropriate for a position performing, under normal supervision, the full range of that kind of work as it occurs in the unit. This constructed grade may be used as the base level for that kind of work. Variety of work within a classification series may be considered in arriving at a constructed grade. Variety which involves work in more than one classification series is not to be used in building hypothetical grades for this factor, but is to be credited under Factor III.

4. The base level of work will be the highest level of nonsupervisory work under the direct or indirect supervision of the position being evaluated when such work meets the following criteria:

- It represents a significant portion of the total work of the unit. Work at a particular level represents a significant portion of the work of a unit when:

    a. Such work constitutes more than half the work of at least two of the full-time positions supervised, and

    b. About 25% or more of the subordinates are at least at that level;

- The supervisor is responsible for technical and administrative supervision over the work; and

- The grade level is not based on extraordinary independence or freedom from supervision, or is not dependent on a sharing of the supervisor's supervisory responsibility such as assistant supervisors, work leaders, or reviewers.

Factor II.--Kind And Degree Of Supervision Exercised

This factor is intended to measure the degree to which the supervisor whose position is being evaluated is actually responsible for the various facets of technical and administrative supervision, as involved in such things as work planning and organization, work assignment and review, and the exercise of supervisory personnel functions.

For the most part, the kind and degree of supervisory responsibility exercised, as expressed in elements 1-3, below, also expresses the extent of supervision received from above and the extent of the incumbent's technical responsibility for the work product. However, in some cases, a position may entail an extraordinary degree of technical responsibility in the subject area, which is not comprehended under elements 1-3. Such a degree of technical responsibility is given separate weight under element 4.

This factor is divided into four elements as follows:

Element 1 - Work Planning and Organization;

Element 2 - Work Assignment and Review;

Element 3 - Supervisory Personnel Functions; and

Element 4 - Full and Final Technical Responsibility.

To Evaluate Factor II--

Compare the responsibilities of the position being evaluated, element by element, with the three defined degrees of each of the first three elements below. For each element in which the position matches defined Degree B, C, and D assign 3, 5, and 7 points, respectively. Since the guide does not provide for the crediting of intermediate points, the highest degree should be chosen for which substantially all duties and responsibilities listed for that degree are performed. Not all degree levels may be discernible in a given organizational unit.

Degree D provides credit for additional supervisory responsibilities and decision-making authority that exceed Degree C on elements 1-3. Such responsibility involves supervising an organization through one or more levels of subordinate supervisors whose supervisory responsibilities match Degree C on elements 1-3 of Factor II.

Degree D does not automatically apply to the second layer of supervision in the hierarchal structure. Rather Degree D contemplates that subordinate supervisory positions will be delegated the degree of authority and responsibility described at Degree C for at least two of elements 1-3 of this factor. In some organizational segments the kind of duties and degree of authority described at Degree D may not be encountered before the third or higher layer of supervision. Note: The terms "first" and "second" level of supervision reflect the nature of the responsibilities and accountability of the position rather than the mere location of the position in the supervisory chain of command.

In assigning points to elements 1-3 of Factor II for positions of supervisors over other supervisors, the following criteria should be applied:

1. Positions which do not match at least Degree B on elements 1-3 are not "supervisor" positions and should not be treated as a level of supervision. (See the standard for work leader positions.)

2. An assistant or one subordinate supervisory position does not constitute a level of supervision. Such positions are typically an extension of the supervisor's own responsibility.

3. The responsibility and authority of a supervisor over two or three supervisors of small units (e.g., each with 3-5 employees) would not exceed the scope and difficulty for planning, organizing, assigning and reviewing work, and personnel administration beyond that described at Degree C on elements 1-3.

4. To warrant Degree D on elements 1-3 the organization supervised as a minimum must be comprised of three or more units with subordinate supervisors whose duties, responsibility, and authority match Degree C for at least two of elements 1-3. Typically, each unit consists of a moderate or large number of employees (e.g., 9 or more).

ELEMENT 1: WORK PLANNING AND ORGANIZATION

Degree B: (3 points) Supervisors at this level have authority to plan work schedules, and sequence of operations on a weekly, monthly, or project-to-project basis to meet the general schedules, priorities, and requirements established by higher levels of supervisor.

Degree B supervisors carry out such responsibilities as:

- plan work schedules and sequence of operations on a weekly, project, or longer basis to assure an even flow and distribution of work, the expeditious handling of priority cases and the meeting of schedules and deadlines;

- revise work schedule to meet changes in workload considering factors such as peak loads, availability of manpower, and processing time requirements;

- coordinate with representatives of other units concerning matters of work accomplishment, priorities and procedures;

- plan for sufficient amount of supplies;

- make recommendations concerning the maintenance or replacement of equipment and the maintenance and safety of facilities; and

- prepare workload and production reports as necessary and report on highlights of operations and problems in meeting work schedules to higher level supervisor.

Degree C: (5 points) In addition to planning the assigned work to meet schedules and deadlines for regular and peak loads and priority cases, supervisors at this level have authority to plan for and make changes in the organization of work for designated functions to achieve efficient and economical operations within allowable costs, staffing levels, and policies established by higher levels of supervision. In organizations that have several large units performing similar work, this authority may be exercised by serving on task or work groups, established to develop work plans and organizational changes.

Degree C supervisors carry out such responsibilities as:

- make changes in organization of work or assignment of functions to positions to improve work flow and services rendered, promote job satisfaction, increase productivity, etc.;

- recommend and justify to higher authority changes that may increase costs or jeopardize the status of employee's tenure, limit services rendered, or affect work outside own unit;

- prepare plans to meet substantial changes in workload and propose and justify revisions in staffing levels, work priorities and deadlines;

- coordinate with representatives of other units to work out changes and problems that affect outside organizations; and

- develop and report to higher levels of supervision estimates of budget requirements based on past experience, anticipated workload and the production capability of the unit.

Degree D: (7 points) In addition to the authority to make changes in the organization of work within allowable costs and established policies as described at Degree C, Supervisors at Degree D have authority to develop plans and schedules for guidance of subordinate supervisors in their organization supervised for the accomplishment of work to meet program goals, objectives and broad priorities established by higher levels of management.

Degree D supervisors carry out such responsibilities as:

- analyze work requirements and determine staff resources, equipment and other resources needed to accomplish work assignments, and make adjustments among subordinate units as deemed appropriate;
- establish and adjust long range schedules, priorities and deadlines for regular and special work assignments, and coordinate work schedules among subordinate units; (Long range typically involves planning cycle such as annually or semi-annually.)
- review, approve, modify, or reject changes in functions, structure, position design, staffing levels, and the like proposed by subordinate supervisors and collaborate with higher levels of management in making decisions relating to major changes in work plans or operations;
- coordinate work operations among subordinate units and with other organizations for matters that may adversely affect other operations or programs; and
- review and analyze records and reports of work production, costs, and equipment and staff resource utilization to evaluate progress and to control or reduce costs; report progress and resolution of problems in achieving goals and objectives to higher levels of management.

ELEMENT 2: WORK ASSIGNMENT AND REVIEW

Degree B: (3 points) Degree B supervisors have authority to determine how the workload should be assigned, processed and reviewed to achieve an acceptable quality level.

Degree B supervisors carry out such responsibilities as:

- assign work to employees or assign employees to positions; break out tasks as necessary to provide new employees with the experience and training required to perform the work;
- assign work (including overtime, disagreeable or choice tasks, etc.) among employees equitably;
- explain work requirements, methods and procedures as needed, giving special instructions on difficult or different operations and answering technical questions about the work;

- review work in progress or upon completion or spot check work not requiring or susceptible of review, as they deem appropriate to assess the quality and quantity of work produced by each employee; and

- inform employees about the policies, procedures, and practices of management as they relate to the work of the unit.

Degree C: (5 points) In addition to insuring that work output is of an acceptable quality and quantity as described at Degree B, Degree C supervisors have authority to define the standards for the work and to prepare and issue internal instructions and procedures for its accomplishment.

Degree C supervisors carry out such responsibilities as:

- assign work to employees or to units or assign employees to positions based on a selective consideration of such factors as difficulty and requirements of assignments; availability, capability and special qualifications of employees; and other resources available;

- formulate and issue (individually or collectively with other supervisors or specialists) written instructions and procedures and special instructions for non-routine or complex assignments or to clarify published guidelines;

- set or participate in setting performance standards;

- review work in progress or upon completion, production reports or other data to ascertain problems in accuracy, adequacy, adherence to procedures, etc. of individuals or units and take corrective action as necessary; or review and accept, amend or reject work for which quality standards have not been established or which may have had a lower-level review; and

- keep employees informed of management goals and objectives and higher level supervisors informed of employees' participation and concerns.

Degree D: (7 points) In addition to responsibility for defining quality standards and internal instructions and procedures for the work as described at Degree C, supervisors at Degree D have authority to establish operating guidelines for and to coordinate activities of subordinate supervisors relating to such matters as organizational structure, performance standards, and work review and reporting requirements to achieve the goals and objectives established by higher management levels.

Degree D supervisors carry out such responsibilities as:

- assign and explain work requirements to subordinate levels of supervision for new or changed programs, functions, goals and processes;
- establish operating guidelines to implement procedures, methods, and other work related changes;
- study continuing problems in the quality and quantity of work and operating effectiveness and take or recommend necessary corrective actions; and
- resolve technical work problems not covered by precedents or established policies.

ELEMENT 3: SUPERVISORY PERSONNEL FUNCTIONS

Degree B: (3 points) In addition to providing pertinent information to employees, Degree B supervisors have authority to carry out established personnel functions and practices, and to keep employees informed about important aspects of personnel management programs.

Degree B supervisors carry out such responsibilities as:

- inform higher level supervisor of anticipated vacancies, increase in workload or other circumstances to obtain replacements, temporary help or additional staff;
- informally recommend promotions, reassignment, or other status changes of assigned personnel, such as retention or release of probationary employees, step increases, and recognize outstanding performance by recommending meritorious awards;
- oversee attendance and leave, typically including approval of ordinary sick and annual leave and vacation schedules;
- resolve informal complaints of employees that are within their jurisdiction, contacting higher levels of supervision, service, or other organization, as appropriate for information and correction of unsatisfactory conditions;
- direct on-the-job training for employees, broaden employee training and provide back-up skills by cross training;
- advise employees of the performance requirements of their positions and keep them informed individually of their progress in meeting the requirements;

- hold corrective interviews with employees and refer disciplinary problems to higher level supervisor;

- prepare formal evaluation of employee performance or provide appraisals to be incorporated into the formal evaluation;

- where labor-management agreements exist, deal with union stewards on matters involving action by an immediate supervisor;

- implement provisions of personnel management programs where well established procedures exist in their installation or organization such as, equal employment opportunity action plans, career development plans, training plans; time, leave, and overtime policies and practices, award and incentive systems; grievance procedures, and safety practices;

- explain to employees the main features and general procedures of the merit promotion plan, relevant training programs and opportunities, basis for classification of employees' positions and pay changes, counseling and health services, and the like; and seek answers to more technical questions from higher level supervisors or staff specialists; and

- inform employees about the policies, procedures and goals of management as they relate to the work of the unit and changes thereto; and inform management of employees' participation, suggestions, and reactions.

Degree C: (5 points) In addition to responsibilities for keeping employees and higher level supervisor informed of personnel matters that affect them, supervisors at this level have authority to prepare formal and follow-up actions for most supervisory personnel functions.

Degree C supervisors carry out such responsibilities as:

- prepare formal requests for filling vacancies or for additional personnel to meet workload requirements;

- select (or participate with considerable weight in the selection of) employees from lists of eligibles; (where large numbers of new employees are hired at one time, selections may be made collectively with other supervisors.)

- prepare formal requests and recommendations for promotions, reassignments, other status changes, or recognition of outstanding performance of assigned employees;

- prepare position-classification actions;

- approve and disapprove leave and recommend action in unusual cases;

- receive formal grievances, resolving those that can be resolved at the first full supervisory level;

- take disciplinary action as deemed necessary and propose to higher authority a specific disciplinary action consistent with the problem and facts (i.e., suspension, demotion, letter of warning, or removal);

- formulate training plans for assigned employees; conduct informal training to broaden employee skills and to provide back-up skills by cross training; recommend more formal training when need is apparent; and officially recommend employees for formal training courses;

- implement specific and general provisions of government-wide and installation programs in the area of equal employment opportunity and employee management relations to assure equal treatment of all employees; and

- inform employees of all aspects of personnel programs of the installation, either answering their questions on such matters or obtaining information from specialists when more technical answers are required.

Degree D: (7 points) In addition to authority to initiate formal and follow-up actions for personnel functions typical of Degree C, supervisors at Degree D have authority to establish internal guidelines for and approve, modify, or reject personnel actions of subordinate supervisors.

Degree D supervisors carry out such responsibilities as:

- develop internal programs, plans, and procedures to insure that subordinate supervisors implement the provisions of various Government-wide, agency, or installation programs such as equal employment opportunity, merit promotion plans, career development plans, performance appraisals, counseling services and others to achieve equitable treatment of employees;

- select or contribute significantly to the selection of key employees (e.g., subordinate supervisor);

- hear group grievances and serious employee complaints (including those referred from a lower level);

- review serious disciplinary cases (i.e., those proposing suspensions and removals) and recommend approval or change to higher level management;

- recommend disciplinary action involving key employees;

- approve, modify, or reject career development plans, training requests, employee utilization proposals, and similar matters and, typically, estimate and justify resources needed to accomplish plans recommended for approval to higher level management;

- approve, modify, or reject formal requests prepared by subordinate supervisors for promotions, reassignments, status changes, awards, selections, and the like;

- prepare formal evaluation of the performance of key employees, and review evaluations prepared by subordinate supervisors; and

- where labor-management agreements exist, deal with union stewards and others on matters involving action by second-level supervisors.

ELEMENT 4: FULL AND FINAL TECHNICAL RESPONSIBILITY (4 points)

All supervisory positions which meet Degree C criteria for element 2 of Factor II, "Work Assignment and Review," will have a substantial measure of responsibility for the technical soundness of work which they supervise. This will ordinarily include responsibility for unreviewed decisions on most of the technical questions which arise in the normal course of the work. However, the normal work situation also provides sources to which the supervisor can turn for advice and assistance on particularly difficult and out-of-the-ordinary technical problems. There are, however, some situations in which a supervisor is required to assume extraordinary responsibility, without technical advice and assistance, for resolving any and all technical problems which may arise in the work.

When, in connection with work which reaches at least a base level of GS-4, a supervisor is held responsible for all technical determinations arising from such work, without technical advice or assistance on even the more difficult and unusual problems, and without further review except from an administrative standpoint, 4 points will be credited for full and final technical responsibility.

There is no intent in this guide to set "Full and Final Technical Responsibility" so high as to preclude its ever being credited in field positions. However, the intent is to restrict this credit to situations which involve a really extraordinary degree of finality of technical responsibility and decisions.

Credit which the guide gives under the first three elements of "Kind and Degree of Supervision Exercised" covers positions with substantial technical responsibility and independence. This provides credit enough for the degree of "finality" of technical responsibility, which will be found in most of the supervisory positions covered, including those which, under loose usage of the term, may be said to serve "under only administrative supervision."

Within any given establishment, and with respect to any one "kind of work," such a degree of responsibility should be neither segmented nor shared. The degree of responsibility which we are trying to identify quickly disappears if there is a technically qualified person within the installation to whom the incumbent can turn for advice and decisions (or if advice can be obtained readily by a phone call or by consulting in the local commuting area). However, if an organization (such as a field establishment) has authority for taking final action in the subject area, if the incumbent is held fully and finally responsible for taking or authorizing that action, and if the operating requirements of the situation are such as to normally preclude seeking technical advice except in rare instances (such advice being obtainable only outside the immediate organization), the necessary extraordinary responsibility would seem to be present.

Factor III.--Scope And Variety Of Operations Supervised

This factor is intended to measure the extent to which size, and workload and variety of functions of the organization supervised, contribute additional grade weight to the supervisory position.

It is well recognized that, other things being equal, the greater the workload and scope of operations supervised, the more difficult and responsible is the supervisory position.

The problem in attempting to measure this facet of supervisory jobs is that there is no common denominator which fully holds "other things equal" and provides a valid measure of workload differences. Even within the same kind of work, where workload may be measured by counting the number of comparable items produced, differences in equipment provided by management, or in other operating conditions, may impair comparability. And, of course, where items produced are not even the same kind (as across occupational lines), there is no common direct measure of workload.

There is, however, a definite and recognized correlation between the scope of a supervisory job and the number of employees needed and provided by management for the accomplishment of that job. It is a truism that an efficiently run statistical clerical operation requiring 30 clerks is a greater supervisory responsibility than an otherwise completely comparable statistical clerical operation requiring only 5 clerks. The problem, of course, is that even here we have postulated equally efficient supervision and organization and equally sound decision by management as to the necessity for the number of employees assigned. These postulates represent assumptions which may not, in all cases, be completely applicable. There may be differences in efficiency of supervision or organization by which one unit can, with fewer employees, carry the same workload as a comparable unit, or, with the same number of employees, carry a larger workload.

In matters of efficiency of employee performance, or effectiveness of management, the classification process can provide valuable information, and assistance. It does not, however, have direct authority and responsibility in these areas. Thus, while classification must avoid placing a premium on inefficiency, it is not, and was not intended as, the vehicle for rewarding efficiency. Other means such as incentive awards, are provided for that. Similarly, while classification must not encourage poor management, it is not, and should not be held, responsibile for management's job of assuring efficient and economical operations.

The fact remains that the number of employees furnished by management to do a job is the only readily available common denominator of the supervisory scope of that job. If efficiency of supervisors and management were equal, and if situational differences were fully accounted for, this would be a completely reliable common denominator. Within reasonable norms of supervisory and management efficiency, the differences in size of work force that may arise from supervisory or management differences will be insignificant in comparison to the magnitude of work force differences which would have grade significance. For the purpose of classification, such reasonable norms must be assumed unless there is evidence that a given situation does not conform to the "norm."

For these reasons, after giving separate consideration to the grade level of work supervised and the kind and degree of supervision exercised, and after providing for separate treatment of variety and special additional responsibilities, the size of the work force supervised is treated as one pertinent element in the evaluation of supervisory positions. When applied with proper judgment, it is considered the best available index of volume of work and the supervisory and management problems resulting from such volume of work. Application of this size of work force factor should always be conditioned by good judgment as to the existence of a normal relationship between the work force and the work load and supervisory and managerial problems for which it is taken as an index.

It is also recognized that the variety of work, particularly as such variety calls for distinctly broader knowledges of varied subject-matter fields, contributes complexity to the supervisory job. Consequently, variety of work supervised is treated as element 2 of this factor.

ELEMENT 1: SIZE OF WORK FORCE SUPERVISED

The table below indicates the points to be credited for various ranges in the size of the work force supervised. No points are credited for the first range of employees supervised because this reflects supervisory responsibility which receives grade credit through other elements of this guide.

Points to be Credited for Size of Work Force Supervised

Size of Work Force	Points to be Credited
3 - 5	0
7 - 12	4
15 - 30	8
40 - 80	16
100 - 200	24

Instructions for Use of the Table:

1. For the purpose of the above table, count all employees in the unit or units supervised, regardless of whether they are in "line" or "support" positions. In organizations with a pattern of several substantial fluctuations in the size of the workforce during the course of each year, credit a number of employees which represents an overall average of the supervisory load carried for the year. In organizations with a pattern characterized by a very sizable work force increase that is sustained over a number of months in a year (e.g., 5 or 6), credit a number of employees which represents the sustained heavier supervisory load carried during this period.

2. Count part-time employees in proportion to the number of hours worked (e.g., two employees working half time are counted as one employee).

3. If the number of employees falls within a range shown in the table, credit the points applicable to that range. If it falls in the gap between ranges, credit the points for the lower of the ranges, as shown on the table, but take note of the fact that the position fell in the gap between ranges for possible adjustment as described under Conversion of Points to Grades. Use only the specific point values shown.

4. There may be isolated instances in which supervisory positions covered by this part involve supervision of larger numbers of employees than shown in the table. In such instances, additional credit may be given for size of workforce supervised. However, determination of the amount of additional credit to be given involves more than an arithmetic projection of the supervisory ranges shown above. As organizations

increase in size beyond the ranges shown, the impact of additional employees diminishes at a much more rapid rate than would be derived by mathematically projecting these ranges. What is required in such instances, therefore, is a determination as to the degree to which supervisory problems are actually compounded by the greater numbers involved. Such a determination is converted to a judgment as to the points to be added.

ELEMENT 2: VARIETY OF WORK (2-8 points)

Where more than one kind of work, each kind representing a requirement for a distinctly additional body of knowledges, is present in a unit, additional points for variety will be credited. Two points will be credited for the second, and each additional kind of "line" work up to a maximum of 8 points on the following basis:

- in identifying "kind of line of work," use the criteria contained in paragraph 1, Factor I;
- both technical and administrative responsibility must be exercised over the work;
- the grade level of the work must be at, above or not more than one grade below the base level of work supervised;
- the work of positions which operate with unusual independence, or which do not represent a significant proportion of the work of the unit may be counted for this purpose.

Factor IV.--Special Additional Responsibilities

This factor covers the additional grade value of such elements as supervision of shift operations; fluctuating work force or constantly changing assignments and deadlines; physical dispersion of subordinates and special staffing situations. It is possible that elements other than those identified below can impose special additional responsibilities on a supervisor. However, extreme caution should be used in crediting "special additional responsibilities" not credited in the guide. This caution should include a determination that the extra responsibility is not implicit in factors already credited, and that it truly has grade weight of the value credited to it.

ELEMENT 1: SUPERVISION OF SHIFT OPERATIONS (4 points)

When the position being evaluated is responsible for supervising activities which are carried on throughout three shifts, or through two fully staffed shifts, an additional 4 points will be credited for supervision of shift operations. Credit under this element will not be given in situations where the operation is essentially carried out on one shift, with part of the staff working staggered hours to provide service for somewhat longer than an 8-hour period, or where only a skeleton force may work part or all of a second shift.

ELEMENT 2: FLUCTUATING WORK FORCE
OR
CONSTANTLY CHANGING DEADLINES (4 points)

a. Fluctuating Work Force:

In some situations, there may be large fluctuations in total work force employed. These significant differences may result from seasonal or other variations in workload. These fluctuations impose on the supervisor a substantially greater responsibility for training, adjusting assignments and maintaining a smooth flow of work while absorbing and releasing large numbers of employees.

Therefore, in circumstances where all the following conditions are present, 4 points may be credited for fluctuating work force:

1. There are substantial cyclic fluctuations.
2. Within a period of a year variations in the work force supervised amount to at least 100 percent of the minimum force for that period but not fewer than 10 employees.
3. The number of points credited for Size of the Work Force Supervised (element 1 of Factor III) depicts a number of employees which represents an overall average of the supervisory load carried during the year.

There is a direct relationship between the basis for crediting the work force size and the basis for crediting supervisory responsibility stemming from fluctuations. When the number of points credited under element 1 of Factor III denotes the number of employees in the work force during a number of months (e.g., 5 or 6) and constitutes a sustained heavier supervisory load, additional points may not be credited for fluctuative work force. In such a situation the greater number of points assigned for size of work force adequately recognizes the supervisory responsibility derived from absorbing and releasing large numbers of employees.

OR

b. Constantly Changing Assignments and Deadlines:

While almost any work situation will involve problems in regard to deadlines and changes in work assignments and goals, in a few cases these problems are so much greater than normal that they add significantly to the supervisor's responsibility. These are cases in which frequent, abrupt, and unexpected changes in work assignments, goals, and deadlines require the supervisor to be constantly adjusting operations under the pressure of more or less continuously unpredictable, changing conditions. As a general principle, this element will not be credited unless it reflects problems which clearly stand out as exceptional. Established and predictable, or unvarying, deadlines or work variations which follow a regular pattern will not be cause for giving credit to this factor. Similarly, peak workloads, changes in procedures, and new work or processes which are (or can be) anticipated will not warrant credit under this element.

Characteristic of the situations this element is intended to cover include changes of deadlines on short notice; unexpected deadlines; or strict deadlines where the workload is highly variable, unpredictable, and uncontrollable; changes in the desired work product which require redoing substantial amounts of work, or redirecting the efforts of the major part of the organization, etc.

When such situations occur with such frequency that the position is found to involve exceptional responsibilities resulting from constantly changing assignments and deadlines 4 points will be credited if extra credit has not been given for Fluctuating Work Force. Both of these elements will not be credited in the same position, as they are considered to involve generally parallel demands on the supervisor and to require basically similar skills.

ELEMENT 3: PHYSICAL DISPERSION (2 points)

Additional supervisory problems are presented in the supervision of positions which are physically located in widely separated places. When a substantial portion of the work force for which the supervisor is responsible is regularly assigned to one or more locations which are physically removed from the location of the main unit (as in different buildings, or widely dispersed locations in a large warehouse or factory building), under conditions such as to make day-to-day supervision difficult to administer, 2 points will be credicted for physical dispersion.

One or two employees should not be considered "a substantial portion of the work force." For purposes of this element, employees, such as timekeepers, messengers, etc., who work out of the same offices as the supervisor, but whose daily duties require circulation, or the making of certain rounds, shall not be considered "physically separated" from the supervisor. However, employees such as guards whose full duties are performed at an assigned post removed from the supervisor will be considered as "physically separated" from their supervisor, even though they may report at the start of their tour of duty to a central point for instructions and assignment to a post of duty.

(This element should not be construed as applying to staff-type technical "supervision" of activities which are not under the line control of the incumbent, nor as an implication that such responsibilities are to be classified under this guide.)

ELEMENT 4: SPECIAL STAFFING SITUATIONS (4 points)

Supervisors are responsible typically for devising work assignments and conducting on-the-job training for and guiding employees at the trainee level. However, some staffing situations may impose on the supervisor a substantially greater responsibility for job design, job reengineering, work scheduling, training, teaching, counseling and motivating beyond that which is normally encountered in orienting and training new employees in the work. For example, special employment programs such as new careers, work-study, upward mobility, rehabilitation, and others may be geared toward utilizing employees with very low level skills and inappropriate or no work experience. Other staffing situations also may involve exceptionally difficult attitudinal and motivational problems.

Four points may be credited for special staffing situations when the following conditions are present:

- several positions are used regularly for special employment programs, or a substantial portion of the work force is involved (one or two employees should not be considered a substantial portion);
- job assignments, work tasks, and training must be tailored, in part, to fit these special circumstances for individual employees; and
- counseling and motivational activities are regular and recurring, and are essential to the effective handling of the special situation.

CONVERSION OF POINTS TO GRADES

The points credited under Factors II, III, and IV, which reflect the degree of supervisory responsibility present in the position, convert, in accordance with the following scale, into the number of grades to be added to the base level of work. However, before a final grade is established for the position, certain further Adjustment Factors are for consideration.

CONVERSION SCALE FOR NUMBER OF GRADES TO BE ADDED TO BASE LEVEL OF WORK FOR SUPERVISORY RESPONSIBILITIES

If total of points credited is:	Add:
9 - 11	1 grade
13 - 18	2 grades
20 - 27	3 grades
29 - 38	4 grades
40 - 51	5 grades
53 - 66	6 grades
68 - up	7 grades

If direct application of the above scale would result in a grade above GS-11 use the following special adjustments:

- Subtract 1 grade from the grade resulting from conversion if that grade is GS-12 or GS-13.
- Subtract 2 grades from the grade resulting from conversion if that grade is GS-14 or GS-15.

This special adjustment is made because the scale for conversion of points to grades in Part I assumes the addition of grades (up to 7 grades may be added), which are based on the breadth, or span, of grades in the one-grade progression (GS-5, 6, 7, 8, 9, 10). These grades are, however, narrower in their individual ranges or spans than grades GS-11 and above. Stated differently, the difference between GS-11 and GS-12, or between GS-12 and GS-13, etc., represents, and always has represented, a full grade in the progression of professional work. As such, these grades are the counterparts in range of the two-grade steps from GS-5 to 7 to 9 to 11. To permit allocations above GS-11 through direct application of Part I would equate the grade spans at the upper levels to those at levels below GS-11, and would therefore distort the evaluation scheme.

ADJUSTMENT FACTORS

1. No position which clearly meets the minimum supervisory criteria (which includes at least level B responsibilities on elements 1-3 of Factor II) will be classified below GS-5.

2. No supervisory position which meets the minimum supervisory criteria will be classified less than one grade above the highest subordinate nonsupervisory position over which the incumbent exercises administrative and technical supervision.

3. For borderline positions, the final decision between two possible grades should be determined on the basis of sound classification judgment as to the overall worth of the position and in consideration of best alignment with other properly classified positions. A position may be considered borderline in one of the following situations:

   a. When the total points for Factors II through IV fall in a gap between the ranges specified above for conversion of points to "Grades to be added;"

   b. When the size of the work force supervised falls in a gap between ranges of the scale provided in element 1 of Factor III, and the total point credits for the position are at the top, or next to the top, value of a range in the Conversion Scale; or

   c. When the grade results in GS-12 or GS-14 after conversion and the point credits for the position are at the top, or next to the top, value of a range in the Conversion Scale. In such instances the automatic reduction may be modified to either 0 or 1 grade at the GS-12 level and either 1 or 2 grades at the GS-14 level.

Attachment 1 to Btn. No. 938-4 (32)

SAMPLE POSITION EVALUATION SUMMARY (USCSC SUPERVISORY GRADE EVALUATION GUIDE - PART I)			JOB NO.
INSTALLATION AND ORGANIZATIONAL LOCATION	TITLE		
	PAY CATEGORY	SERIES CODE	GRADE
	DATE	SIGNATURE (Evaluating Authority)	

FACTOR I		
BASE LEVEL OF WORK - TITLE AND SERIES		GRADE GS-
FACTOR II - KIND AND DEGREE OF SUPERVISION EXERCISED	POINTS	
1. WORK PLANNING AND ORGANIZATION		
2. WORK ASSIGNMENT AND REVIEW		
3. SUPERVISORY PERSONNEL FUNCTIONS		
4. FULL AND FINAL TECHNICAL RESPONSIBILITY		
FACTOR III - SCOPE AND VARIETY OF OPERATIONS SUPERVISED		
1. SIZE OF WORK FORCE		
NO. OF POSITIONS SUPERVISED BY SERIES AND GRADE		
2. VARIETY OF WORK		
FACTOR IV - SPECIAL ADDITIONAL RESPONSIBILITIES		
1. SUPERVISION OF SHIFT OPERATIONS		
2a. FLUCTUATING WORK FORCE OR		
2b. CONSTANTLY CHANGING ASSIGNMENTS AND DEADLINES		
3. PHYSICAL DISPERSION		
4. SPECIAL STAFFING SITUATIONS		
TOTAL POINTS		
NUMBER OF GRADES TO BE ADDED TO LEVEL OF WORK SUPERVISED		
ADJUSTMENTS (Explain in Remarks Below)		
FINAL CLASSIFICATION		GS-

REMARKS